

small air forces observer

vol. 40 no.4 (160)
April 2017

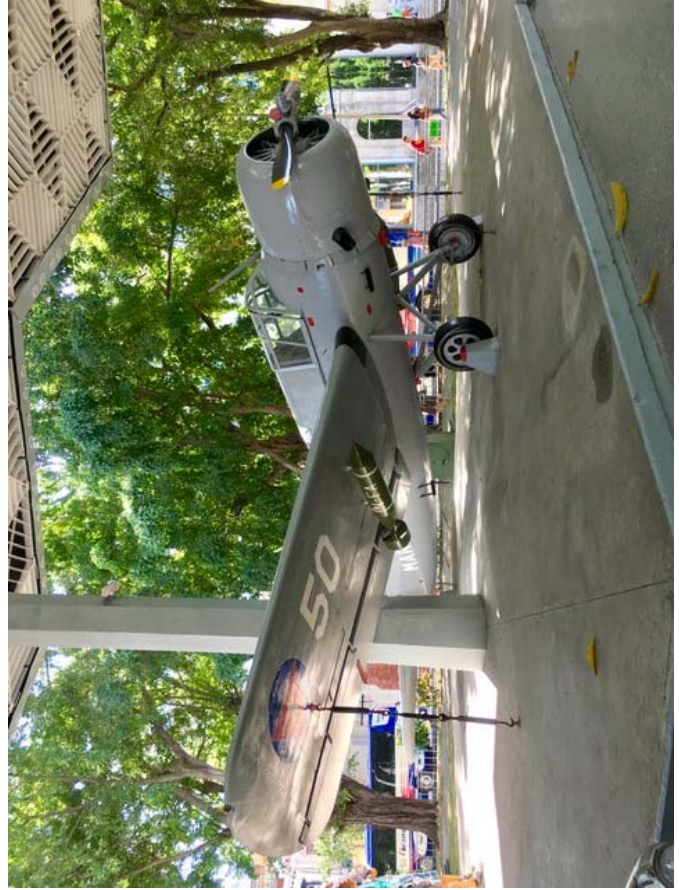
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Fiat CR.20 Part3: Paraguay, Poland, Spain, & Hungary
Iranian Air Force Canadair CL-13B Sabre Mk.6
Ecuador Cessna 185D & Bell 214B
Cuban Military Aircraft on Display
The LVA in 1916 Part 2
Exotic Birds 9

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Cuban military aircraft on display. See letter on next page.

SMALL AIR FORCES OBSERVER

The Journal of the Small Air Forces Clearinghouse

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SMALL AIR FORCES OBSERVER (USPS 439-450) is published quarterly for \$20.00 (USA) \$24.00 (Canada & Mexico), and \$28.00 for all others, by the Small Air Forces Clearinghouse, 27965 Berwick Dr., Carmel, CA 93923. Periodical Postage Paid at Carmel CA and additional mailing offices.

POSTMASTER: send address changes to Small Air Forces Clearinghouse 27965 Berwick Dr., Carmel, CA 93923.

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THE SYDNEY AWARD: This is a quarterly award given to a member who has consistently provided excellent articles for publication in SAFO. The awards consists of a one-year subscription to SAFO and is funded by the Richard E. Cross and Naidene Denton Cross Memorial Fund. The honoree this quarter is **Santiago Flores** for his series on Mexican aviation.

COVER COMMENTS: Iranian Canadair CL13B Sabre Mk.6 (former Luftwaffe JB-114) at Vahdati, Iran. A careful look reveals the Luftwaffe Cross still visible under the hastily applied Iranian roundel. Also noticeable are the remains of the German flag under the Iranian flag on the tail and wiped-out JB-114 serial on the fuselage. (via iranianaviation.com)

A VISIT TO CUBA [Editor's note: On a recent trip to Cuba, Dennis Jenkins took a lot of photos of war relicts. A selection of these is found on pages 110 and 143.]

"There were two displays - one was outside Havana that had an SA-2, an unidentified wing (U-2?), and a bunch of other military hardware (mostly AAA guns).

"The engine, along with a Sea Fury, a Soviet tank, a couple of other aircraft, and an SA-2, were at an extension to the Museo de Revolution. I am assuming it is a U-2 engine from the same airplane as the wing at the other place from. The aft fuselage was from an A-26 from Bay of Pigs."

Dennis R Jenkins

AUSTRIA

OFH NACHRICHTEN (Oesterrichische Flugzug Historiker, Pfenninggeldf 18/2/14, A-1160 Wien.

4/16 (44 pages) "Restauration-sprojeckt: Westland Whirlwind" 5 pages inc. 12 photos. "Oberleutnant Ernst Burkard" 11 pages inc. 13 photos (Fw 200C Condor).

FRANCE

AVIONS: Toute l'Aeronautique et son Histoire (Lela Presse, 29 rue Paul Bert, 62230 Outreau, France. 71 euro for 6 issues). Website: www.avions-bateaux.com. E-mail: contact@avions-bateaux.com

#214 Novembre/Décembre 2016 (98 pages) "Nikolaï Skomorokhov" 17 pages inc. 32 photos and 7 color profiles (LaGG-3, La-5F (3), Ju 87D-3, Fw 190A-8, & Bf 109G-14), and table of his 54 victories. "Rupture de Train sur un Canadair Français" 3 pages inc. 8 photos. "Les Premiers F-35 Israéliens" 3 pages inc. 7 photos. "Le Grumman F6F Hellcat dans la Seconde Guerre Mondaile: 4^e partie" 18 pages inc. 30 photos, 8 color profiles, and 2 maps (Gilberts & Marshalls). "5318th Provisional Air Unit au 1st Air commando Group: 2^e partie" 12 pages inc. 23 photos, 9 color profiles [P-51A (2), B-25H (2), C-47A, UC-64A Norseman, Aeronca TG-5, Stinson L-5F Vigilant, & Stinson L-5 Sentinel], and one map. "Tigres volants sur la jungle: La saga du 26th FS/51st FG: (in)" 8 pages inc. 18 photos and 3 color profiles [P-51B & P-51G (2)]. " 'Trompe la Mort' Maxime Lenoir l'as de Verdun; fin". 9 pages inc. 12 pages inc. one color profile (Spad VII) and table of his 11 victories and 9 probables. "Roamno 82: 4^e partie" 15 pages inc. 34 photos and 4 color profiles.

#215 Janvier/Février 2017 (98 pages) "5318th Provisional Air Unit au 1st Air Commando Group (3^e et dernière partie)" 20 pages inc. 41 photos, 12 color profiles [Stinson L-1A, Sikorsky YR-4B (2), Stinson L-5 (2), P-47D (3), B-25H, Waco CG-4A, C-47B, & P-51K] "14 Juillet 2016 – Jour de liesse, nuit de deuit" 10 pages inc. 22 photos of French aircraft. "Derrière le rideau de fer" 6 pages inc. 20 photos of Hungarian aircraft (MiG-15UTI, MiG-17, MiG-21bis, MiG-21MF, & MiG-21UM). "Emil contra Emil: Les unités de Bf 109E de la

Luftwaffe en Yougoslavie (1^{re} partie)" 22 pages inc. 37 photos and 7 color profiles (Bf 109E). "Le Grumman F6F Hellcat dans la Seconde Guerre Mondaile (5^e partie) 1944 l'année décisive." 12 pages inc. 21 photos and 3 color profiles (F6F, A6M5a, & G4M1). "Les deux guerres du Major Theor Quandt" 10 pages inc. 25 photos, two color profiles (Albatros D.III & Bf 109E), and table of his 15 victories in WWI. "Romano 82 (5^e et dernière partie)" 10-page list of careers of all Romano 82s inc. 15 photos.

ITALY

JP4 Menslie di Aeronautica e Spazio. Via XX Settembre, 60-50129 Firenze, Italy. Email: jp4@dueservice.com. Website: www.ediservice.it.

Agosto 2016 (100 pages) Color photos: Angola AW109E, RAAF C-27J, Poland PZL W-3PL, Slovakia Airbus A319CJ, and India Su-30, "Il crepuscolo degli Alpha Jet portoghesi" 5 pages inc. 10 photos. "Incidenti Militari" 1½ pages inc. 6 photos (Montenegro Gazelle, India MiG-27MU, Vietnam CASA C-212, Greece CL-215, Syria Su-22M3, and Libya MiG-23).

Settembre 2016 (100 pages) Color photos: Brazil Boeing 767-300ER, China H-6K, Thailand Sukhoi Superjet SSJ100, Austria DART-450, and Serbia Mi-17V. "Incidenti Militari" one page inc. 4 photos (Indonesia Bell 205A, Tunisia Bell UH-1H, Portuguese C-130H, and Syria L-39ZO).

Ottobre 2016 (100 pages) Color photos: Australia Pilatus PC-21, China Shaanxi Y-9, Argentina Grob G1210-TPA, and India Hindustan Safran, "Le due aeronautiche della Libia" 2 pages inc. 7 photos (Air Tractor AT-802U, Siai SF-260W, MiG-25, Miage F-1, MiG-23BN, and MiG-21FM). "Il Dewoitine 26 dell'AM" 3 pages on restored Swiss Dewoitine 26 inc. 8 photos. "Progetto 55: Costruire una replica" 2 pages inc. 3 photos. "Incidenti Militariiii" one page inc. 2 photos (Vietnam L-39 Albatros and Ukraine Mi-35).

Novembre 2016 (100 pages) Color photos: Turkmenistan A109E, Poland M346, Argentine Tecnam P2002JF, Romania F-16AM/BM, Zambia Hongdu L-15, Czech Republic L-39, Ukraine

Aerntra o W-2, "Leonardo Elicotteri produrra in Algeria" 2 pages inc. 7 photos (Algeria AW101, Super Lynx, AW109 (3), and AW139 (2)). "Wonsan Air Festival 2016" 4 pages inc. 13 photos (MiG-21, Il-18D, MiG-29, An-2, Su-25K, Il-62M, Tu-134B-3, Hughes 500D, and PAC P-750) "Vola lo Junkers F13 Rimowa" one page inc. 4 photos. "Incidenti Militari" one page inc. 4 photos (India MiG-21, South Korea Super Lynx, and Kenya IAR 330 Puma).

Dicembre 2016 (100 pages) Color photos (Argentina CH-47F, Costa Rica Y-12E, Honduras Cessna C-208B Grand Caravan, Nigeria AW 101, Brazil Helbrase H225M, and Vietnam Su-35. "Airshow China" 4 pages inc. 14 photos (H-6K, J-20, J-10B, AG600, JL-9, and KJ-2000). "Cartoline dal Passato: Vittorio Meneghini" 3 pages inc. 7 photos of Italian a/c [Fiat G.212, Fiat G.46, Fiat G.59 (2), Stinson L-5, DH 100 Vampire, and P-51 Mustang]. "Incidenti Militari" one page inc. 5 photos (Brazil Embraer P-95B, German Bell UH-1D, Rwanda Mi-8, and Bolivia Metro 23).

Gennaio 2017 (100 pages) Color photos: Indonesia CN-235, Poland M-346, Australia P-8A, Bolivia Zlin 242L, Germany Eurofighter, Japan F-35A, Slovakia Airbus A319 & Fokker 100, Kenya UH-1B, Israel F-35A, Russia IL-22PP, Spain A400M, and Portugal F-84G. "Aeronautica Polacca" 6 pages inc. 9 photos [Su-22 (3), F-16D (4), PZL-104 Wilga, MiG-19, & MiG-21UM]. "Incidenti Militari" one page inc. 5 photos (Philippine PZL W-3A Sokol '926', Nigeria AW-101 'NAF-28', Indonesia CASA Aviocar 200 'U-623' & PZL M28 Skytruck 'P-4201').

Febbraio 2017 (100 pages) Color photos: Italy Gulfstream G550 CAEW & F-35A, Argentina C-130, China SAC Y-9, Croatia MiG-21UMD, South Korea AW 159, Nigeria Super Mushshak, and Dominican Republic Tecnam P2006T. "61⁰ Stormo" 8 pages inc. 14 photos (T-346). "F7 Skaraborgs Flyflottilj Sätenäs" 6 pages inc. 8 photos [Saab Sk.60E, JAS 39C Gripen (5), & Tp-84 (C-130)]. "Incidenti Militari" 1½ pages inc. 5 photos (Mexico T-6C Texan II '2015', Indonesia C-130H 'A-1334', Malaysia Beechcraft B200T King Air, Tunisia UH-1H Huey 'L81-921'.

The Strange Case of the Iranian Canadair CL-13B Sabres

Leon Manoucherians & Duncan Curtis

[This article first appeared in *Iranian Aviation Review* #11 and is reprinted here with the permission of their editor Leon Manoucherians. It is not an exact reproduction of the original article since I have taken the liberty to omit the copies of original documents and the photos of these Sabres in Luftwaffe colors. All photos are via IAR. A detailed reviews of the military content of two recent issues of IAR are to be found on page 139 of this issue of SAFO.]

In January 1966 Germany sold Iran 90 Canadian-built Canadair CL-13B, Sabre Mk-6s. at \$75,000 per aircraft (1966 Dollar Value). The Iranian Ministry of Defense agreed that the German firm of MEREX A.G. would act as a broker for the government of Iran. Luftwaffe pilots would ferry the Sabres to Iran.

Organization and planning for the operation was done by JaboG 42 at Pferdsfeld under Major Bernhard. The 90 aircraft destined for Iran were former Jagdgeschwadern 72 and 73 machines. The transfer route was straight-forward as far as eastern Turkey, but a vast no-man's land devoid of nav aids lay between there and Iran that would stretch the Sabre's endurance to its limits. The route was first checked out by experienced pilots aboard a Luftwaffe Nord Noratlas transport. After this, the operation got under way, with a plan to move aircraft in eight-plane groups on weekends. All flight originated at Oldenburg, where the pilots, each carrying a desert survival kit, accepted the Sabres from the supply regiment or "Versorgungsregiment". There was extra concern about the Diyarbakir to Vahdati AFB leg, close along the Soviet border. There pilots would have to get weather reports from Vahdati early enough in order to decide whether to continue or return. Passing beyond Tehran on a southerly course, there was no chance to return if the weather was down at the destination, for Vahdati had no approach aids at the time. As an additional safety measure, each formation leader had to have made the trip before.

Two legs were planned for each trip. From Oldenburg across France to Piacenza in northern Italy for refueling, then on to Gioia Del Colle in southern Italy for a night stop. Next day took them to Turkey, first to Eskisehir for fuel, then to Diyarbakir for a night stop. Stage three was to Iran, first into Tabriz in the eastern Azerbaijan province, for fuel, then on to Vahdati AFB near Dezful where the Sabres, still in German markings, were accepted by the IIAF.

The German pilots were ferried to Tehran by IIAF C-130Bs and travelled home on commercial flights.

This operation was greatly enjoyed by the Luftwaffe pilots. It was a wonderful opportunity for long cross-

country experience, normally beyond the scope of operational flying, and a chance to visit some exotic places. For this long flight, the Sabres carried 167-gal. under-wing tanks. Some of the aircraft on the trip were given non-standard code letters, about which little is known.

The operation went well, although the last group ran into severe weather in Italy. The Sabres barely made it to Grosseto, with minimum fuel - the last possible place to go. Within moments of their landing, torrential rains struck the area and left the Germans stranded in a difficult condition for two weeks! One Sabre (c/n 1783), parked in a low-lying place at Grosseto, was immersed in water up to the canopy. It was later found to be damaged beyond repair. With this aircraft out, the remaining 89 Sabres found their way safely down to Iran.

Once in Iran, these aircraft hastily received IIAF markings. Oddly, the corners of the Luftwaffe Iron Cross still showed up from under the green outer circle of the Iranian roundel.

Despite the completion of the delivery, the story of these Sabres had not yet ended, for they were quickly transferred to Pakistan. Eventually they were to see combat against India in 1971. At the time, German officials seemed to have had no idea what the real purpose of the deal with Iran was. Pakistan had been looking for a fighter to replace its losses in the 1965 war, and to augment its fleet of F-86Fs. However, the India-Pakistan war of 1965 had caused the US to embargo further arms shipments to Pakistan, at least for the time being. In addition, German policy prevented dealing arms with countries involved in conflict, or with areas of political unrest - thus Pakistan had to arrange the Sabres purchase "under the table".

Aside from Iran's intention to assist its CENTO ally, Pakistan was considered a fellow Muslim nation. Already in 1960-61, many IIAF pilots had received their jet training from Pakistani instructors on PAF T-33s and F-86Fs.

Beside all of the official ties between Iran and Pakistan, the Shah of Iran had a close personal friendship with the President of Pakistan, General Ayub

Khan, who on various occasions openly requested the Shah for military assistance. Iran had already supplied Pakistan with tanks, artillery, armored cars, ammunition, and naval vessels.

When it became known that former Luftwaffe Sabres were operating with the PAF, there was a stir in the press, notably in India and Germany. When officials in Washington learned of the sale, they were puzzled at first knowing that Iranians had no use for the aircraft themselves. Indian defense minister Y.S. Chavan alleged that Pakistan was involved in a massive arms build-up following the 1965 India-Pakistan war, including fighters brought in from China and Germany.

Germany replied that it had received Iran's assurance that the Sabres were sent Pakistan for "overhaul" and that they would not be resold to Pakistan. Besides, any resale would be subject to Canadian approval, which was in fact obtained from Ottawa for the Iranian deal.

Canada drew attention to the Indian reports, but Iran explained by saying that some of the Sabres had to be sent to Pakistan for maintenance and would be returning to Iran. The Canadian Embassy in Bonn was advised that a British company called Hilldeah Ltd. (Crowhurst Park, Battle, Sussex) was planning to import £932,000 worth of ex-Luftwaffe Sabre spare parts to the UK. The Canadians were anxious that re-sale to Pakistan or Iran might follow. Hilldeah had obtained 4 import certificates for Sabre aircraft, its spare parts and Orenda engines.

The German exporter was identified as Kullmann (Carl Erich Kullmann, Wiesbaden-Sonnerberg, Haidweg, West Germany). The export certificate comprised of:

1- Incomplete aircraft parts and spares for 24 Sabres, 24 Orenda engines, one flight simulator. Total value £400,000.

2- Parts and spares for 17 dismantled Sabre Mk.6 and 1 flight simulator plus spares for both (195 cases). Total value £192,000.

3- 100 containers of incomplete disassembled Sabre Mk-6 aircraft, general parts, aspirators ailerons, aspirators, aft sections. Total value £185,000.

4- 75 cases of Orenda engine spares. Total value £155,000.

All were identified as destined for Iran, and the deal was vetoed by the UK and Canadian governments.

Pressure was brought to bear on Tehran and the Iranians agreed to return the aircraft. In reality Iran was forced to purchase back the aircraft and some documents indicate \$111,000 was paid per aircraft.

However, six aircraft marked as non-flyable remained in Pakistan, but history shows that the six Sabres, still in their original camouflage, were later repaired and pressed into PAF service and flew combat missions during the 1971 Indo-Pakistan war, claiming victory over two Su-7s and three Gnats of the Indian air force.

In the PAF, the Canadair Sabres were referred to as F-86Es, and the last one was grounded in 1980 for fatigue.

The German government acted in good faith throughout the German-Iranian deal. On the surface, there was no indication that the Iranians had other intentions, though it may have seemed a bit odd that Iran, at the time building up squadrons of F-5s, would want such a large number of much older Sabres.

The Aircraft

The CL-13B Sabre Mk.6 was the last production version of the Canadair Sabre of which 655 were built. The German Luftwaffe took delivery of 225 Mk.6s. In fact, the last Sabre Mk.6, rolled off the assembly lines on October 9, 1958, was delivered to the Luftwaffe. Therefore, the German Sabres were considered the newest Canadair Sabres in service worldwide.

The German Sabres were fitted with the 6-3 wing with leading edge slats for improved low-speed handling and most of them were wired to carry the AIM-9B Sidewinder AAM. The aircraft was powered by one Avro Orenda 14 Turbojet engine rated at 7,275 lb. st. The higher thrust of the Orenda 14 over the 5,910 lb. st. J-47-GE-27 engine of the F-86F resulted in a major improvement in the fighter's climb rate and altitude performance. With 55,000 ft service ceiling and 720 miles per hour maximum speed, the CL-13B Mk.6 became the most potent Sabre built by any nation.

Dimensions (with F-86F's in brackets for comparison): Wingspan: 37 ft. 1 in. (39 ft. 1 in.), Length: 36 ft. 6 in. (37 ft. 6.5 in.), Height: 14 ft. 7 in. (14 ft. 8-3/4 in.), Wing area: 304 sq. ft. (313.4 sq.ft.).

Performance: Maximum speed: 710 mph at sea level, 680 mph at 10,000 ft, 630 mph at 36,000 ft. Initial climb rate: 11,800 ft/min. An altitude of 40,000 ft could be reached in 6 minutes. Tactical radius (clean): 363 mls. Maximum range with two 200-gallon Maximum range with two 200-gallon drop tanks: 1,495 mls.

Weights: 11,143 lbs. empty, 16,426 lbs. normal loaded, 17,611 lbs. maximum.

Armament: Six 0.50 Cal (12.7mm) Colt-Browning machine guns. Underwing loads could include two 100-lb, 500-lb or 1000-lb bombs, 750-lb napalm tanks, 500-lb fragmentation cluster bombs, or sixteen 5-inch rockets..

Chronology of Events

(Extracted from British and U.S. embassy official documents).

February 1966:

The Iranians confirmed through the Swiss government that 90 ex-German Sabres would be used by Iran only and permanently stationed there. Soon afterwards the UK Ministry of Aviation received a request for English Electric Lightnings from Iran, causing the UK government to ask why the Iranians were buying Sabres?

June 2, 1966:

The British Embassy in Tehran stated that the German government was aware that Sabres were being sent to Pakistan "...for a fortnight or so" as a show of CENTO solidarity and were also being flown by PAF pilots stationed in Iran. By the end of June 1966, 20 IAF Sabres had been flown to Karachi "for modifications".

July 6, 1966:

The US Assistant Air Attache in Pakistan noted two Sabres dog-fighting over Peshawar. One was camouflaged and the other silver. The camouflaged aircraft apparently had the better of the exchange, as it seemed to have more thrust. His report stated "as far as we know all the PAF Sabres are natural bare metal!"

July 17, 1966:

The IAF assured the German government that the "missing" Sabres had gone to Israel "for repairs". The Canadians also reported that the Orenda engines may have been flown from Pakistan to Israel for overhaul.

July 25, 1966:

On a visit to West Germany, IAF Gen Toufanian openly admitted that the IAF had received 80 Sabres from Luftwaffe and had passed 60 on to Pakistan.

September 7, 1966:

The German government was told by the IAF that all but 16 of the 60 aircraft sent to Pakistan for overhaul had returned to Iran. On the same day, General Toufanian told Col. Ludwig Hauswedel (German Air Attache in Iran) that only 12 remained in Pakistan, and the remainder would be flying in the IAF Day parade on October 17th.

December 12, 1966:

Colonel Hauswedel told Gp Capt. PA Knapton (UK Air Attache in Iran) that all 90 ex-Luftwaffe Sabres had been transferred from Iran to Pakistan. It was reported thirty had returned to Iran to take part in the IAF Day parade. In fact, 77 were returned to Iran, one was grounded and the remaining 76 flew in the parade.

General Hassan Toufanian

In a recently four-star General Hassan Toufanian (1921-1998), V published post-revolution interview with former IAF ice Minister of War and Head of Department-4, in charge of all military procurements during the Shah's regime, he remembers the following on the Iran-Pakistan Sabre deal...

...since my assignment to head of Department-4 in charge of military procurement, I set up a strict policy of no-intermediate, no brokerage and no agent fee, for all Iranian military contracts.

Of course, during my years as the vice minister of war, there have been illegal brokerage activities, such as the Lavi brothers scandal with Grumman during the F-14 deal, which following extreme pressure from my office, the received brokerage fees were reversed and was applied as credit towards spare parts supplied by the U.S. government.

However, in the case of Pakistan, the situation was completely different... the purchase of the German Sabres was not for Iran. Why would I need 90 old F-86s when I was already buying F-5s? It was for a third country, in this case Pakistan.

The deal had to be quick and affordable. The Shah ordered me "to do anything possible, and in the fastest way to help Pakistan in its defense needs. He said, "tell them to take out all the seats of their transport aircraft, send them to Iran and you fill them with whatever they need." So, I had to let the intermediate dealer, Merex Company, represent itself as the purchasing agent for the Iranian government.

I immediately flew to Germany to facilitate the deal and to make sure that German pilots will flew the aircraft to Iran.

I arranged the deal including the supply of spare parts, delivery and the brokerage fees for a total of one million dollars.

During this process, the Indian government became aware of the deal, and the Indian ambassador to Iran filed an official complaint to our state department.

The Shah called me and said "The Indians are very angry and disturbed, what can be done? ", I said "your Majesty...in about two weeks on the 25th of Mehr (Iranian calendar) is our air force day. With your permission I will bring back those aircraft and fly them in the air parade with Iranian markings in front of all the foreign dignitaries". The Shah said "That is a good idea..do it! " So, I did.

Among the VIP guests were Gen. Ayub Khan and Gen. Musa, sitting next to the Shah. The Indian ambassador was in the back row, I sat next to the

ambassador to hear his conversation with the Indian military attache. When the aircraft flew by they were stunned to see them in Iran.

Construction Numbers

1592 W/O 1971	1658 W/O 1967	1747 P. Quetta 8/08	1808 W/O 1978
1594 W/O 1969	1660 (ex-BB169) W/O 1974	1749 W/O 1968	1809 Sargodha college 2/04
1595 Decoy at Masroor 10/03	1661 (ex-JB254) W/O 1971	1751 Sir Syad Park, Karachi	1810 Korangi Creek 9/85
1606 To Bagladesh	1663 To Bangladesh	1754 Decoy at Masroor 10/03	1811 W/O 1975
1607 W/O 1971	1665 Scrapped 1976	1756 Sharea-Faisal Museum	1812 Scrapped 1974
1608 To Bagladesh	1669 To Bangladesh	1763 W/O 1971	1815 Gift from Pakistan to
1609 Possible return to Iran?	1670 Display, Lahore Stadium	1764 Malir, Karachi	Canada, preserved at Winnipeg.
1614 (ex-JR105) W/O 1971	1671 Possible return to Iran?	1765 W/O 1966	
1616 W/O 1970	1674 W/O 1968	1766 W/O 1970	
1617 To Bagladesh	1683 W/O 1975	1771 Masroor college	
1618 W/O 1971	1689 W/O 4/12/1971	1772 W/O 1971	
1621 W/O 1972	1692 W/O 1976	1777 Stored Masroor AFB	
1622 Scrapped 1979	1693 Malir Sch of Artillery	1778 Sehwan Sharif, Sinda	
1623 Possible return to Iran?	1695 W/O 1973	1781 Scrapped 1975	
1624 W/O 1973	1701 NED university, Karachi	1783 Damaged and written-	
1626 Sharea-Faisal Museum	1702 Display at Shakirpur city	off in flood at Grosseto, Italy.	
1627 Malir, Karachi 10/03	1703 W/O 1971	1786 W/O 1971	
1629 PAK Masroor AFB 10/03	1705 Display, Faisalabad city	1787 (ex-JA317) W/O 1975	
1632 Karachi 5/09	1718 W/O 13/12/1971	1788 (ex-BB177) W/O 1980	
1634 Karachi 2/07	1719 W/O 1970	1789 (ex-JR250) Masroor coll.	
1636 W/O 1978	1720 W/O 1968	1790 (ex-JB125) Kalabagh	
1639 Shaheen Chowk, Sargodha	1722 Malir Cantonment 5/09	1792 (ex-JB101) Sharea Faisal	
1650 W/O 1970	1728 Lahore Stadium 2/10	1794 Mianwali 2/10	
1652 Scrapped 1968	1733 Islamabad Air HQ.	1797 On display, Sharea Faisal	
1653 W/O 1971	1735 W/O 1971	1798 W/O 1974	
1655	1738 W/O 1971	1800 W/O 1972	
1656 (ex-JB253) Madinat Univ.	1739 Decoy at Masroor 10/03	1802 To Bangladesh	
1657 (ex-JA334) W/O 7/12/71	1742 W/O 1968	1803 W/O 1971	

While some documents indicate 26 out of 89 CL-13B Sabre Mk.6s returned to Iran, other sources claim none have ever returned to Iran. Up to this date, after over five decades have passed, there is no confirmed information as to the final fate of the surviving Iranian Sabres. It is known that many of the IIAF-supplied Sabres of Pakistan air force have been lost in the 1971 war with India while flying with the 18 squadron " War Hawks " from Masroor, and 17 squadron " Tigers" from Rafiqui air bases. Few of the PAF Sabres are on display at various air museums throughout Pakistan.



While all F-86Fs, as the one shown above, received a three-tone camouflage after being overhauled in Israel, none of the ex-Luftwaffe CL-13s adopted the same camouflage. (via [iranianaviation .com](http://iranianaviation.com))

The Fiat C.R.20 in Service

Part 3

Paraguay, Poland, Soviet Union, Spain, & Hungary

Rudolf Höfling

[This is the continuation of a translation of an article that first appeared in *Flieger Revue X* #51. This translation is published with the permission of the author, Rudolf Höfling. The first part appeared in SAFO #158 and covered the C.R.20 in service with the Regia Aeronautica. Part 2 appeared in SAFO #159 and covered Lithuania and Austria.. This third, and last, part covers the service of the Fiat C.R.20 with the air forces of Paraguay, Poland, the Soviet Union, Spain, and Hungary. The translation is by Goggle with assistance from Jim Sanders and clarifications by Rudi Höfling. All photos are from the author unless otherwise noted.]

Paraguay

In the early 1920's, Paraguay acquired a number of aircraft from America, France, Germany, and Italy. The Italian aircraft included the futuristic fighter Savoia S.52, the reconnaissance/bombers Ansaldo SVA.5 and SVA.10, the flying boats Cant.10, Macchi M.18, and Savoia-Marchetti S.59, the transports Breda Ba.15 and Ba.44, and the trainers Cant.26 and SAML A.3.

In 1929, the Paraguayan Fuerza Aéreas Nacionales ordered five Fiat C.R.20bis. [Some in the Fuerza Aéreas Nacionales considered the two-seat Curtiss-Wright C14R Osprey a better choice. This reconnaissance aircraft, which was originally designed as a trainer, became an opponent of the Paraguayan Fiat C.R.20bis on the side of Bolivia in the Gran Chaco War (1932 – 1935) as the Curtiss-Wright A14R Osprey.]

The Fiats arrived at the Paraguayan capital Asunción, in April 1933. They were assigned to 11ª Escuadrilla de Caza Los Indios and were allocated c/n 11-1, 11-3, 11-5, 11-7, and 11-9.

These Fiats came at just the right time for Paraguay. During war with Bolivia, the Paraguay experienced a nasty surprise by the appearance of Bolivian Curtiss 35A Hawk II and Curtiss 65 Sea Hawk II fighters. High hopes were placed on the ability of the Fiats to combat these potent adversaries.

At the airfield Campo Grande near Asunción, nine pilots, from 1ª Escuadrilla de Caza of Fuerza Aéreas Nacionales, began an intensive flight-training program in April and May 1933. (Note 11) After completion of their conversion to the Fiat C.R.20bis on 25 May, the Los Indios-Escuadrilla transferred to the airfield at Isla Poi in the Gran Chaco region. On the long journey to the north along the Rio Paraguay, they had to stop over night at the city of Concepción

to refuel.. The morning of the following day, the five Fiat took off from Concepción in dense fog to continue their flight to Isla Poi.

Shortly after take off, the pilot of 11-9, 2nd Lt. Walter Gwynn, experienced technical problems with his Fiat. Gwynn crash landed his Fiat near San Salvador where he was injured and his plane was completely destroyed. Fiat No. 11-7 also experienced trouble, but the pilot fortunately made a safe landing back at Concepción. The remaining three Fiats arrived without further incident at Isla Poi. 2nd Lt. Gwynn arrived a few days later. Repair of Fiat 11-7 at Concepción must have proven difficult, because when, on 11 June 1933, the remaining three Fiat 11-1, 11-3 and 11-5 took off from Isla Poi on their first mission, the fourth machine 11-7 not yet ready for use.

The C.R.20 in Action

The three Fiats had taken off to intercept four Curtiss A14R Ospreys of the Bolivian Cuerpo de Aviación that were attacking the airfield at Isla Poi. The Fiats forced the Ospreys to drop their bombs prematurely and to hastily retreat.

The following day, five Bolivian Osprey again attacked Isla Poi, but this time they were escorted by three of the dreaded Curtiss Hawk II and a Vickers 143 Bolivian Scout. When the three Paraguayan Fiats intercepted the enemy, it was the first air combat between Paraguayan and Bolivian fighters in the Gran Chaco War. 2nd Lt.. Walter Gwynn in Fiat 11-1 was accompanied by Capt Bernardino Caballero Alvarez in Fiat 11-3 and 2nd Lt. Tomás Rufinelli Jr in Fiat 11-5.

All three pilots waited impatiently for the chance to test their new fighters against the legendary Curtiss

Hawks. 2nd Lt. Rufinelli reported that at precisely the moment when he had a Bolivian Curtiss Hawk in his sights, his machineguns suddenly jammed. This first “dogfight” between fighters in the Chaco War ended inconclusively with all Bolivian Hawks returning to their operational airfield without damage. However, the withdraw of the Curtiss fighters left the bombers unprotected except for the single Vickers Scout. The Bolivian Ospreys were now exposed to the furious attacks of three Paraguayan Fiats. The Bolivian bombers dropped their bombs and also sought safety in flight. The single Vickers 143, flown by Capt. Luis Ernst, attacked the Fiat 11-1 of 2nd Lt. Gwynn and fired several volleys at the plane in front of him.

During this dogfight over Ilsa Poi, 2nd Lt. Gwynn crashed landed his Fiat 11-1 near his own airfield. The Bolivian claimed this crash as an aerial victory for the Bolivian Vickers Scout. However, examination of the wreck of Fiat 11-1 by the Paraguayan military showed no evidence of damage caused by machinegun bullets. Therefore, it was considered probably that the crash was caused by unhealed injuries Gwynn had sustained in his emergency landing on May 26 at Concepción.

The Fiats as Escorts

By August 1933, Fiat 11-7, was ready for use. In the following months it flew from Isla Poi, together with the remaining two Fiat 11-3 and 11-5 of the “Los Indios”, a large number of escort missions for the Potez 25A-2 and Potez 25T.OE of the 2^o Escuadron de Reconocimiento y Bombardeo which was also stationed at Isla Poi. They attacked Platanillos, Saavedra, Corrales, Herrera, Samaklay, Zenteno, Falcón, and Gondra. But in all these operations, there were no notable encounters with Bolivian aircraft.

On 4 March 4 1934, Capt Bernardino Caballero Alvarez crashed his Fiat 11-3 at Isla Poi. He died of his injuries shortly after this accident. Since his plane was a total loss, the inventory of Fiat C.R.20bis in Paraguay, within an operating time of 11 months, was reduced from five to two machines.

In the spring and summer of 1934, the remaining two Fiats escorted the Potez 25s of the Fuerza Aéreas Nacionales on countless reconnaissance and bombing missions over Garrapatal, Picubia, Algodonal, Carandaiti, and Ybimirante. On one of these flights,

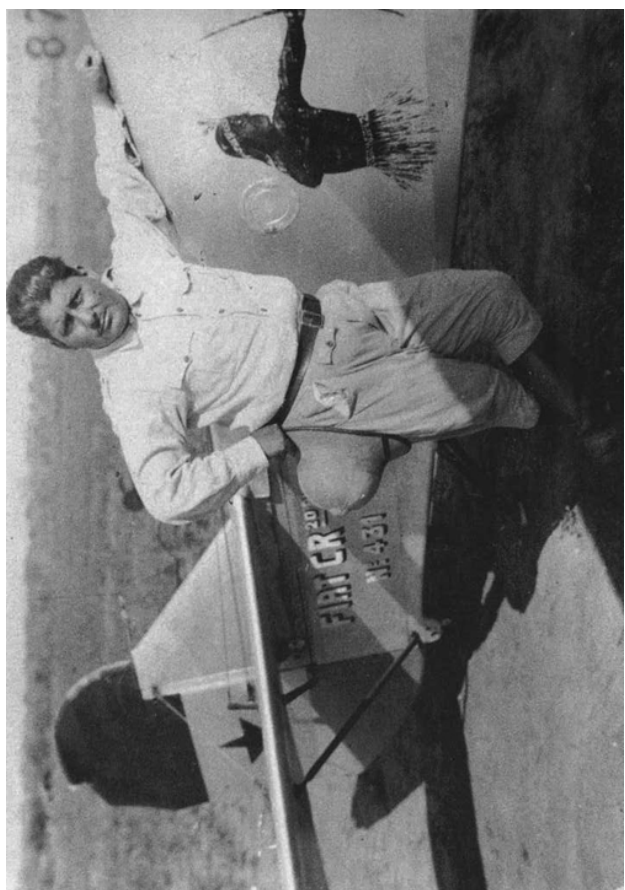
on 23 September 1934, the crew of Paraguayan Potez 25A-2 c/n 5 reported sighting 2nd Lt. Tomás Rufinelli in 11-5 and 2nd Lt. Orlando Salerno in 11-7 attacking two Bolivian Curtiss A14R Osprey. As both Fiats attacked, one of the Ospreys reconnaissance/bombers jettisoned its bombs and veered away. The crew of the second Curtiss, pilot Alberto Paz Soldán and observers Sinecio Moreno, who evidently had not seen the retreat of their comrades nor the two attacking Paraguayan fighters, flew on its course undisturbed. Only shortly before the two Fiats came into firing range did the Osprey jettisoned its bombs. Now began a chase, in which the two Fiats alternately fired at the fleeing Curtiss two-seater. The the chase was long dragged out and the two Fiats became increasingly distant from the Potez 25 they were supposed to be escorting. The Fiats had to break off their attacks and returned to their Potez. The Curtiss A14R had been hit several times, but despite heavy damage managed to return home. The two Paraguayan Fiat claimed a “probable” victory

Both Fiats spent the rest of the war on escort flights during which they participated in no more dogfights. The end of the Chaco War began with a ceasefire on June 12, 1935. On August 20, two Fiat C.R.20bis took part in the victory parade of the Paraguayan armed forces. The final peace treaty between Bolivia and Paraguay, however, was not signed until 1939.

In summer 1935, the 11^a Escuadrilla de Caza Los Indios was dissolved and 1^a Escuadrilla de Caza was later fitted with the successor model – the Fiat CR.32quater. In the late 1930s, the two C.R.20bis were provided with new military numbers. Fiats 11-5 and 11-7 were redesignated C-1 and C-2. In a deadly air accident on 19 October 1939 on the airfield Campo Grande, the C-2 was destroyed. The last Fiat C.R.20bis of the Fuerza Aéreas Nacionales, C-1, was finally broken up in 1941.

Notes

- 11 These nine pilots of the Los Indios-Escuadrilla were the captains Bernardino Caballero Alvarez and Vladimir Porfenenko, Navy Lieutenant Victor Urbieto Rojas, the Air Force Lieutenant Walter Gwynn, Tomás Rufinelli, Román Garcia, Orlando Salerno net, Abelardo Bertoni and the Lieutenant Abdón Alvarez Albert.



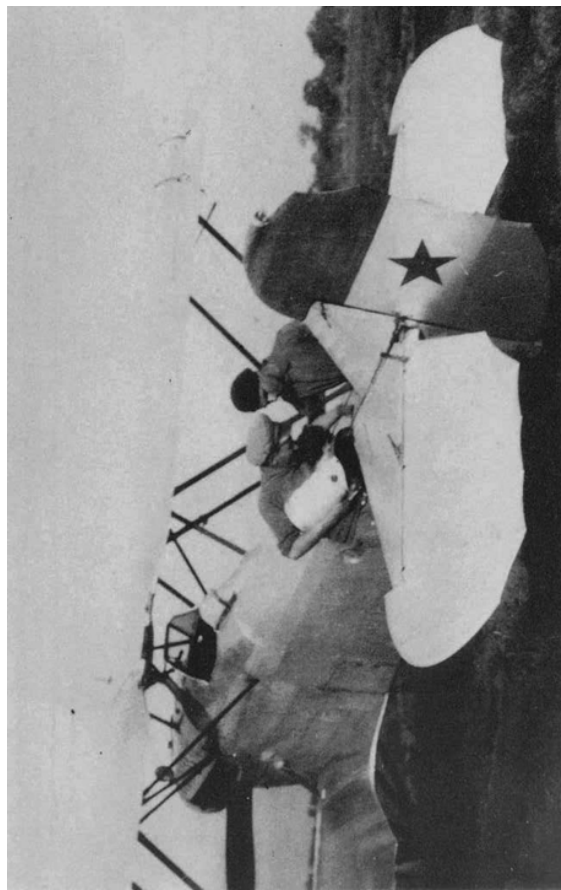
Capt. FAM Leandro Aponte besides a Fiat C.R.20bis of the Los Indos Squadro, Isla Poi, 1934.



Fiat C.R.20bis in Asuncion, Paraguay.

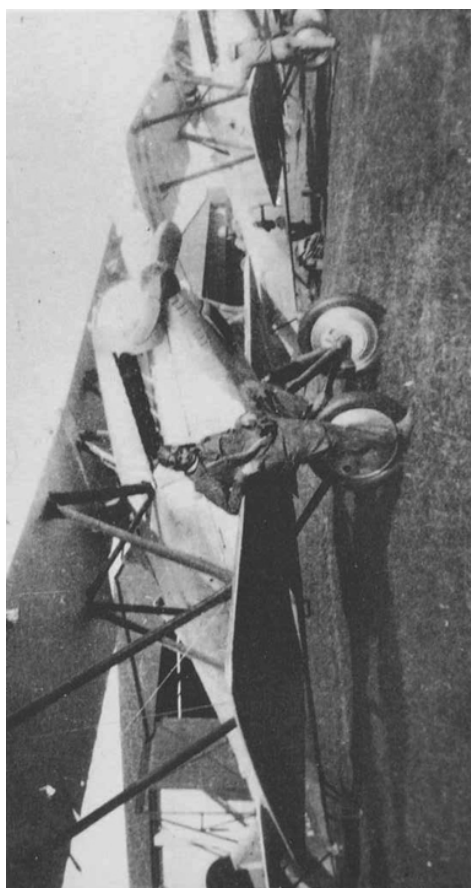


Capt. FAM Leandro Aponte in his Fiat C.R.20bis, Paraguay, 1933.

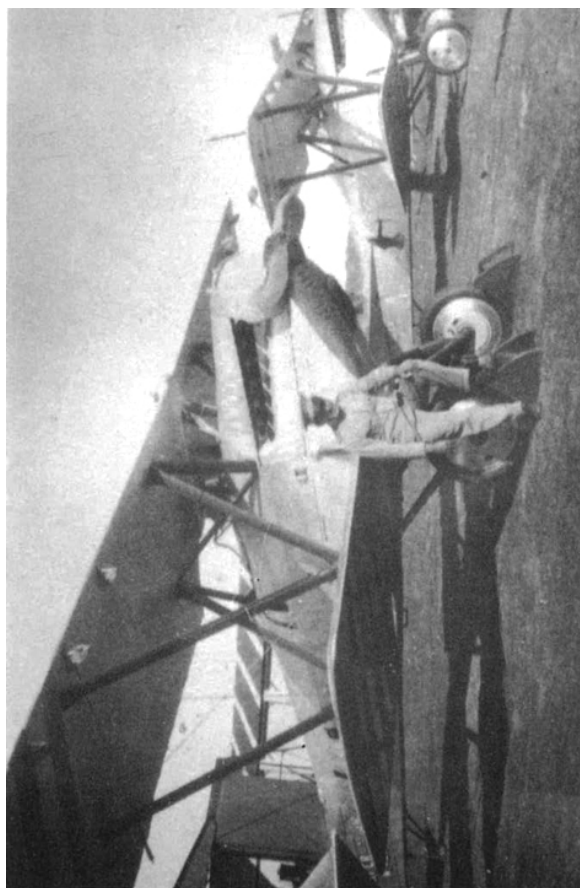


Fiat C.R.20bis in Isla Poi, Paraguay, 1933

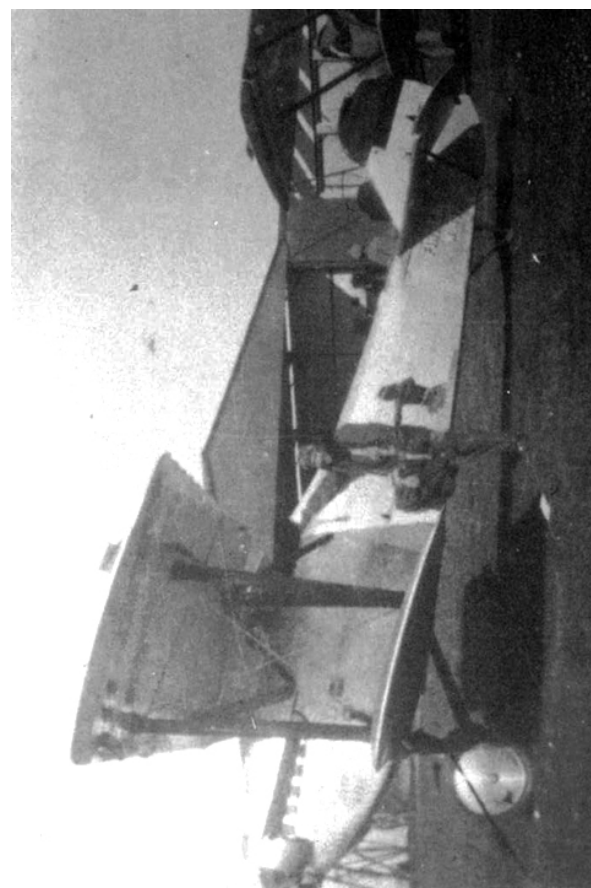
All photos via Robero Gentilli



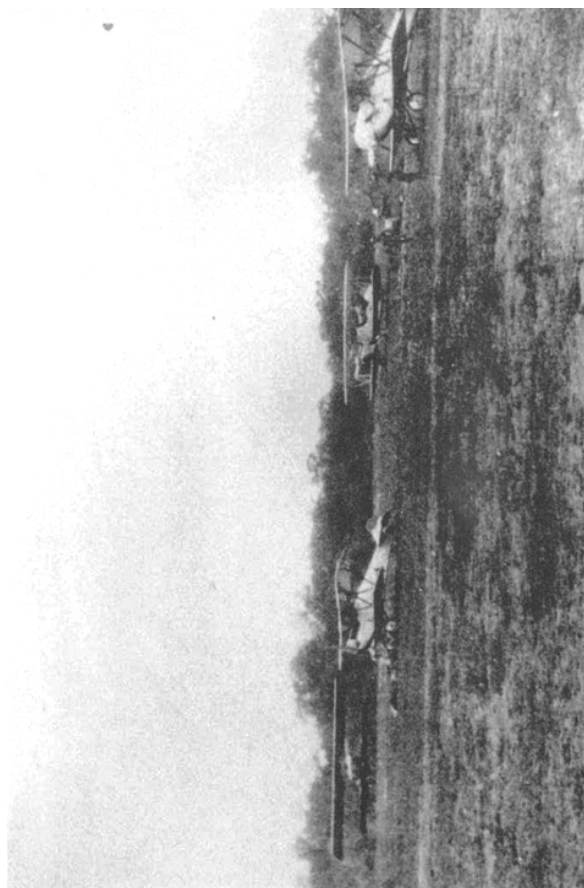
Fiat C.R.20bis in Paraguay



Fiat C.R.20bis of the Undecima Escuadrilla de Casa, Nu-Guazu, Paraguay, 1933



Fiat C.R.20bis 11-7, of the Los Indios Squadron, in Nu-Grazu, Paraguay



Fiat C.R.20bis, Potez 25 and Curtiss D-12 in Isla Poi, Paraguay, 1933

All photos via Roberto Gentilli

Poland

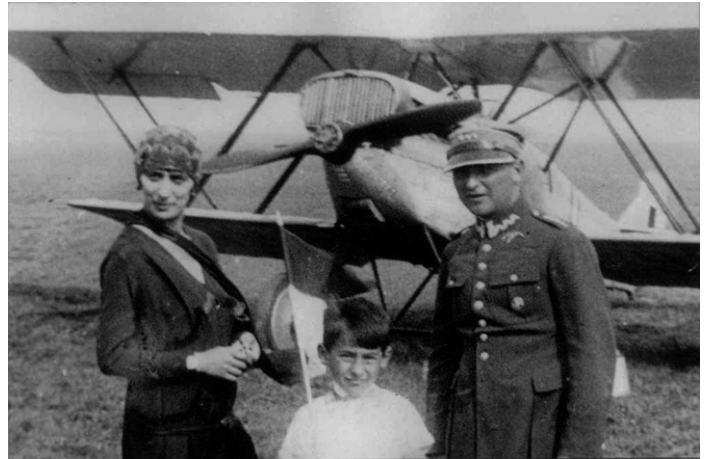
The first Fiat aircraft tested by Poland were a CR.1 and BR.1 between February and June 1926. In July 1929, the head of the supply department of the Polish Air Force, Colonel (Pulkownik) Abczynski, initiated talks with the Italian military attaché in Poland, Colonel Roatta, about the loan of four unarmed Fiat C.R.20. Beginning in August 1929, four fighters with serial numbers 1793, 1795, 1799, and 1810, left from Turin for Warsaw via Austria where they had a stopover at the Vienna-Aspern airport.

On 6 to 9 September 1929, the Little Entente (Czechoslovakia, Romania, and Serbia) held an air race from Bucharest to Prague via Warsaw. The Polish Air Force originally intended that all four borrowed Fiat C.R.20 were to participate. The pilots selected were Lt.Col. (Podpulkownik) Jerzy Kossowski, Capt. (Kapitan) Jerzy Dlugoszewski, Capt. Leopold Pamula, and 1st Lt. (Porucznik) Edward Wieckowski. Eventually, only two of the Polish C.R.20 took part in the race.

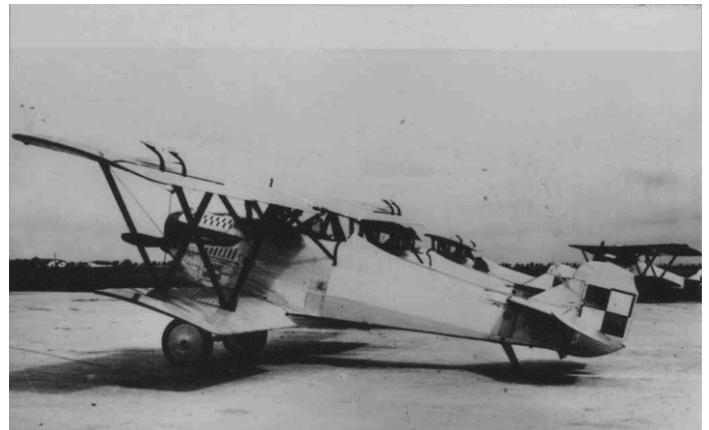
Twenty-nine aircraft started the race, but because of bad weather, only nine reached the the finiah line. The only Polish C.R.20 to finish the competition was Capt. Pamula, a member of the 4th Air Wing of the Polish Air Force, with a 9th place overall. Pamula achieved an average speed of 213 km/hr with a top speed of 249 km/hr. During the climbing competition, he climbed to an altitude of 3,570m in 11 minutes.

In the following three months, the four Fiat C.R.20 were tested by the 1st Air Wing in Warsaw, the 2nd Air Wing in Krakow, and the Aviation School of the Polish Air Force. The Polish pilots who flew the four C.R.20 reported that while this Italian biplane fighters compared favorably to the then standard fighter of the Polish Air Force, the SPAD 61C.1, it

had no particular advantages. Therefore, all four Fiat C.R.20 were retuned to Fiat at the end of 1929.



Capt. Adam Wojtyga and his family before a Fiat C.R.20 of ET-2PL (2. Squadron) in Krakow.



During their flight to Poland 4 Fiat C.R.20 made a stopover in Aspern, Austria, August 1929

Soviet Union

Early in 1928, the Soviet Union ordered two Fiat C.R.20 for testing purposes. Initially, these aircraft were assigned to the NII V-VS (Scientific Test Institute of the Soviet Air Force). Subsequently, they were sent to the Belarusian Military District for field testing. Later, they served with the 13th, 17th, and

91st Otdelnji istrebitelnji aviaeskadrillji for further service testing. They ended their service with the 15th Aviabrigada where they presumably were used for liaison and training. One of the Fiat was soon lost in a crash, while the other was still in Soviet service at least until the end of 1933.

Spain

In 1928, Fiat offered the C.R.20 to the Spanish Aviación Militar as a successor for the outdated Nieuport-Delage Ni.D. 29-fighters. Competitors of the C.R.20 were the Spanish Loring C.1 and the French Dewoitine D.27 and Nieport-Delage Ni.D. 52. The latter won the contest to serve as the new standard fighter of Spain.

Ten years later, Spain acquired six Fiat C.R.20bis as training aircraft for the Escuela de Caza Gallur near Zaragoza. The first three of these were delivered in February 1938 and the remaining three in March 1938. There is evidence that some of these Fiat were still serving as trainers as late as 1942 with the flight school at Morón de la Frontera near Sevilla.



Spain acquired six C.R.20bis for their flight school at Saragossa.

Hungary

In 1929, an Hungarian military mission in Italy tested the Fiat C.R.20, and the following year Hungary bought a single-seat Fiat C.R.20 and a two-seater C.R.20B which received civil registrations H-MAPP (ex-I-AAPP) and H-MAPQ (ex- I-AAPQ) respectively. Shortly thereafter, the single-seat C.R.20, while still carrying Italian registration I-AAPP, collided in the hangar at Szombathely with a Heinkel HD.22 and a Fokker C-V. There are indications that this C.R.20 was repaired and, with civil identification HA-AZA, was serving with the 6th Időjelző Osztály (6th Meteorological Squadron) in 1936.

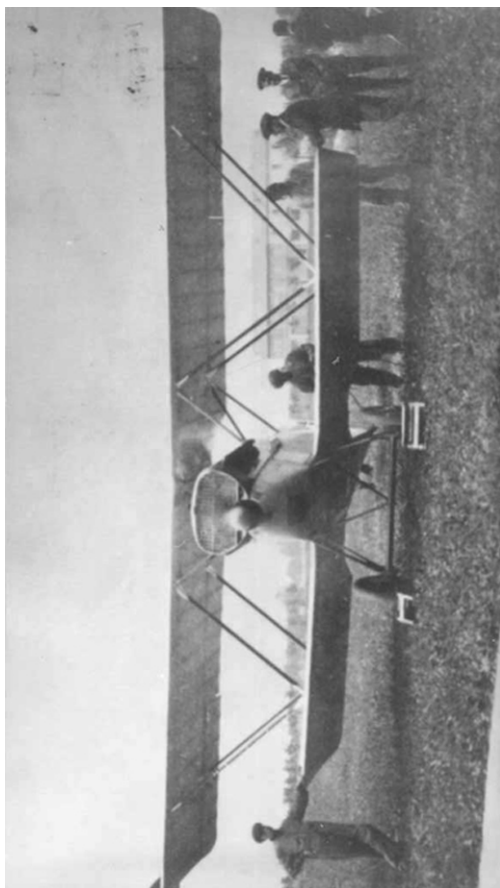
Two years after the purchase of the first two Fiat C.R.20, with the help of a loan from Italy, Hungary acquired twelve Fiat C.R.20bis (Note12) (c/n 373-384 and seventeen Caproni Ca.101 bomber) for the Magyar Honvéd Királyi Légierő. These C.R.20bis were scheduled for delivery in April 1931, but did not arrive in Hungary until mid-1932. They received civil registrations and were divided into two squadrons. The Italian registrations of these twelve machines, I-AAZH to I-AAZS were converted to Hungarian civil

registrations HA-AZA and HA-AZI to HA-AZS. These unarmed C.R.20bis were delivered to the Hungarian school stationed at Szombathely, where they each received two Hungarian 8mm machineguns of the type MG-KM 26/31. This school at the time was an unofficial Jagdstaffel with the "secret" Hungarian Luftwaffe.

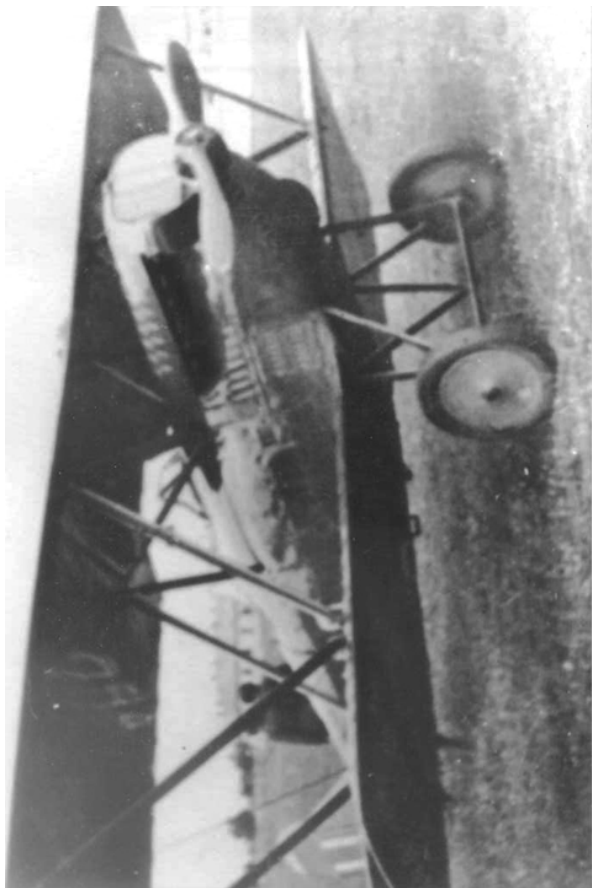
In the following months, several fatal accidents occurred, including the collision between two C.R.20bis in the air. From 1936, the remaining C.R.20bis were assigned to the Jagdfliegerschule in Székesfehérvár, and in 1937 the C.R.20bis were completely replaced in the Hungarian fighter squadrons by its successor, the Fiat CR.32. When the Magyar Honvéd Királyi Légierő went public in 1938, the Fiat C.R.20s were no longer in the inventory.

Note

- 11 According to British sources, there were a total of 16 Fiat C.R.20bis - but there are only twelve civil IDs occupied.



Fiat C.R.20 in Hungary



Fiat C.R.20 in Hungary



Fiat C.R.20 H-MAPP in Hungary

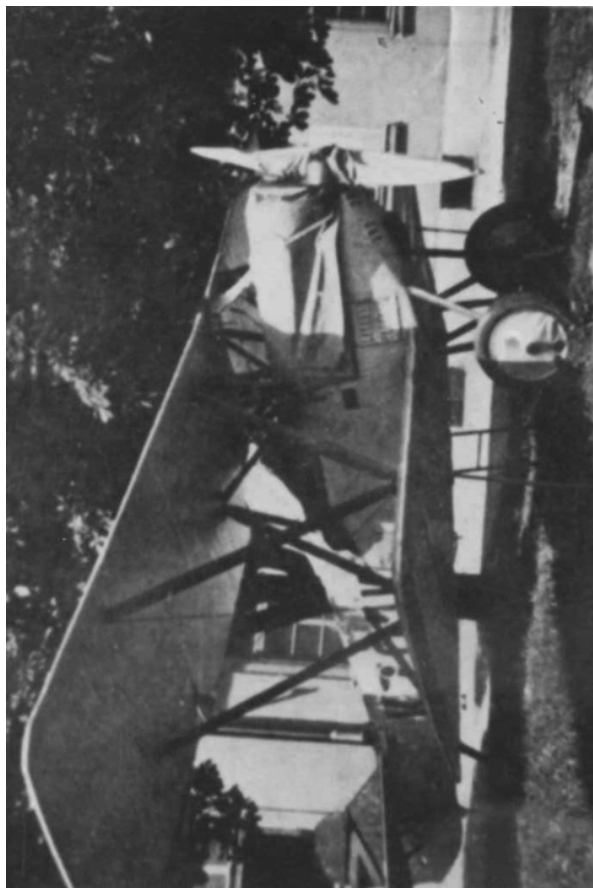


Hungarian Fiat C.R.20

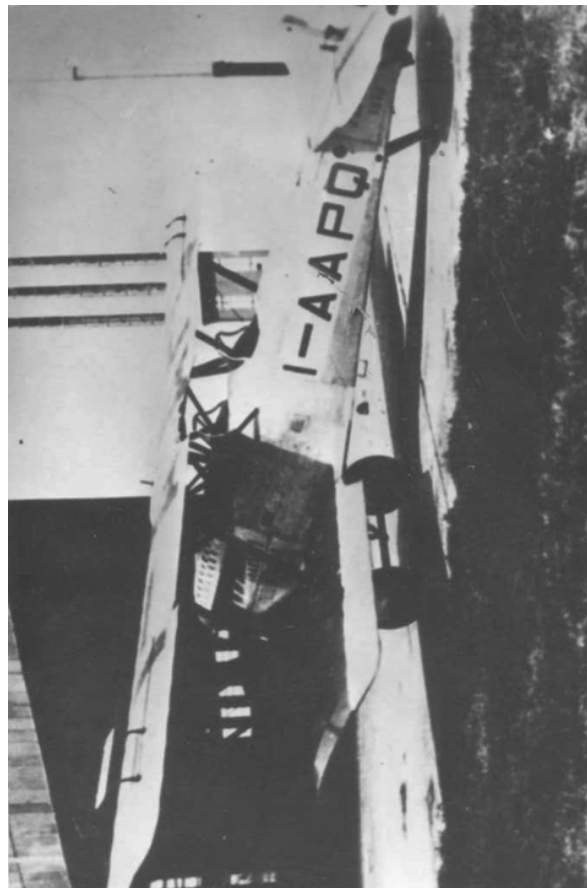
All photos via Laszlo Javor



Fiat C.R.20 I-AAPP collided in a hangar of Szombathely with a Hungarian Heinkel HD.22 and a Fokker C.V



The last Hungarian Fiat C.R.20 at the Military School in Sopron, about 1940



The Fiat C.R.20B two-seater later got the registration HA-APQ

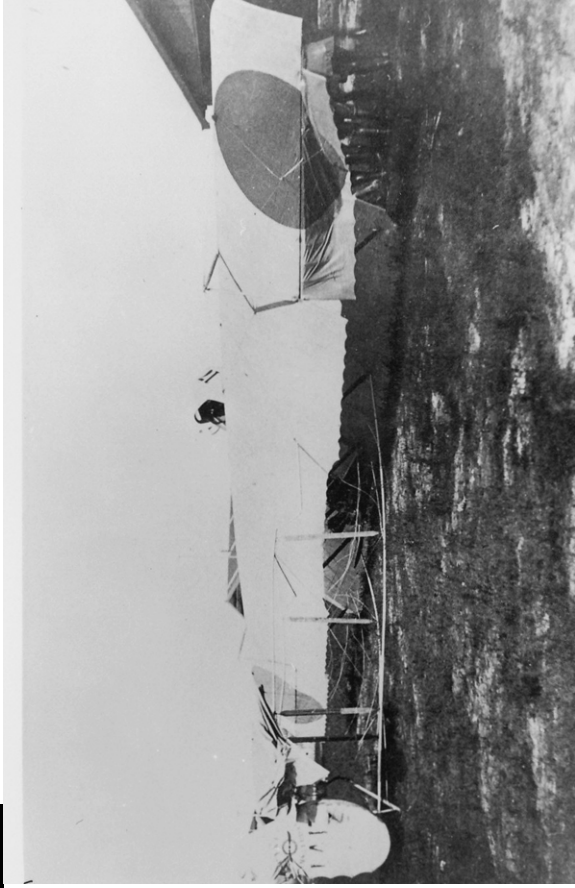
All photos via Laszlo Javor

The LVA in 1916: Part 2

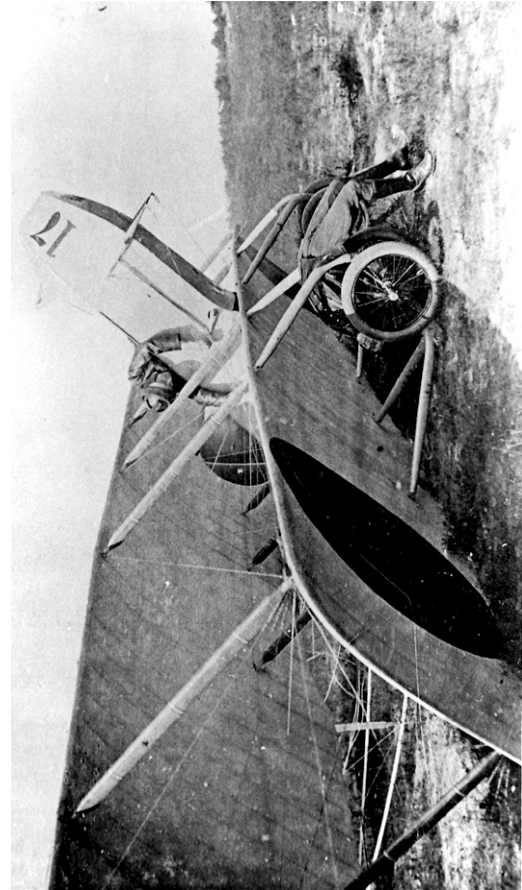
Frits Gerdessen



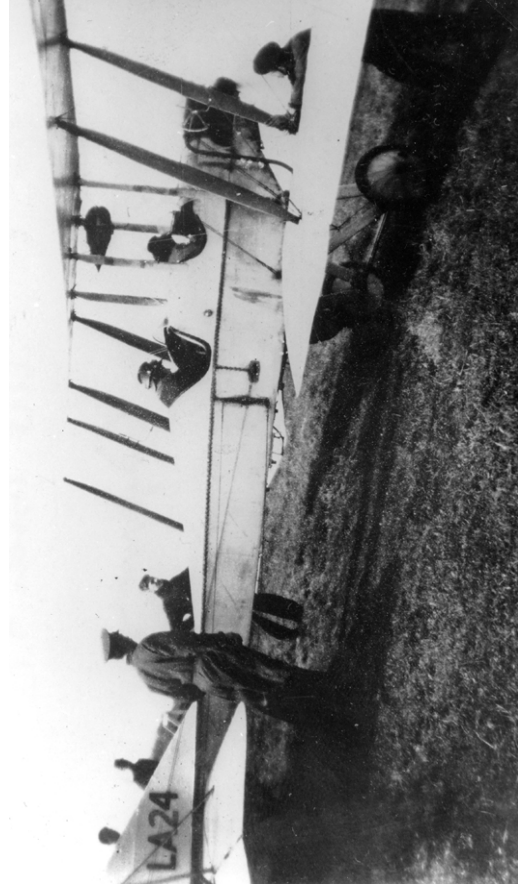
On 19 March 1916, LVG B.II 1069/15 (later LA29) landed near Herpt. Next day Lts. van Wulfften Palthe and Roeper Bosch landed alongside with Farman LA16 and ended up in a ditch.



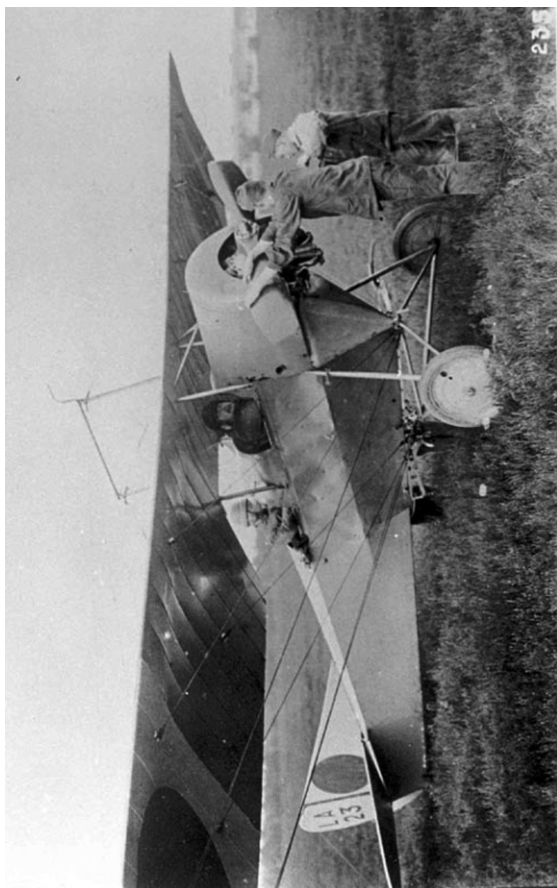
On 30 March 1916, Lt. J. Engelbert van Bevervoorde ran into LA17 with a car. Most likely this plane was rebuilt as LA30 or LA32.



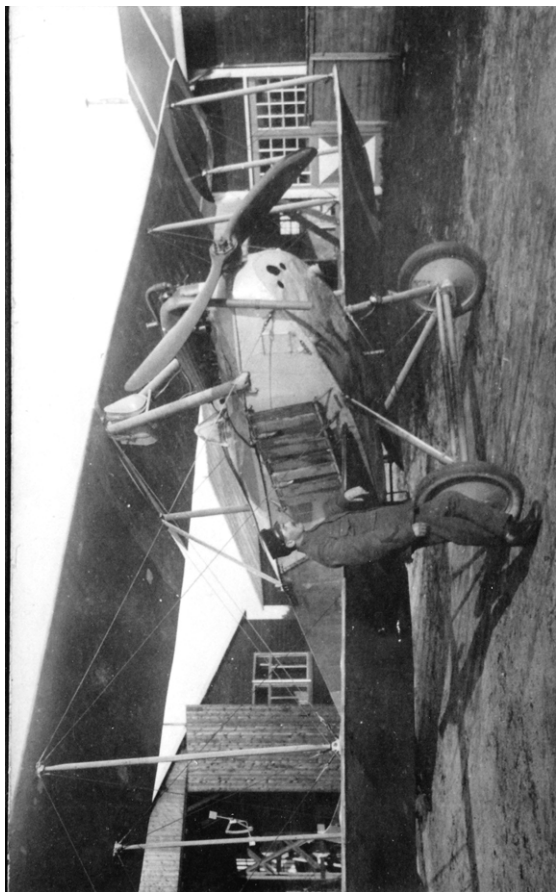
Another photo of LA-17 with the officers posing as victims.



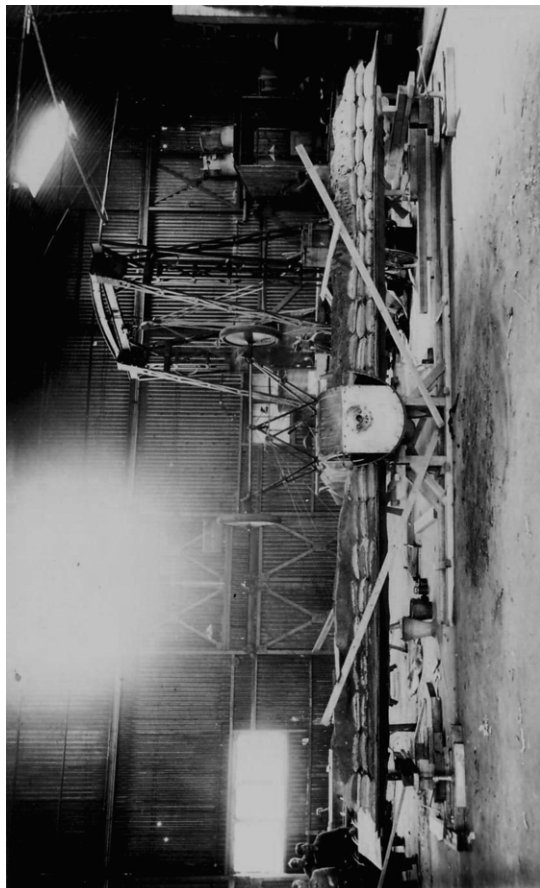
BE.2C LA24 (ex 1677, interned the 5th June 1915) was often flown by naval pilots. In this case, the pilot is LTZ Karel Doorman, who was killed as a rear-admiral in the Battle of the Java Sea, 27/28 Febr. 1942.



REP LA23 (ex RNAS 8460, brought in by Erroll Boyd on 3 October 1915) is prepared for a flight.



LVG B.I LA25 at Soesterberg (ex 223/14, interned on 28 August 1915).



Morane L parasol monoplaner LA35 (ex-1845, RFC No. 3 Sq.), interned minus pilot on 22 January 1915, was converted to shoulder-wing configuration and being load-tested.



LVG B.II LA29 in front of hangar 10 at Soesterberg (ex 1069/15, interned on 15 March 1916).



Sopwith 1½ Strutter LA 33, ex 9396, RNAS No. 5 Wing at Coudekerke, arrived intact except for some bullet holes on 25 August 1916. After being attacked over Belgium, the fuel ran out and Fl.Lt. C.W. Jamieson had no choice but to go to Holland. Shown here, LA33 carries a meteorograph and the photo may have been taken on 17 November 1916 when an altitude test flight was made. The plane was w/o early in 1917 (reason unclear) and then converted into a twin-engine bomber, the Vreeburg A2M. (See SAFO #157)



Fokker A.I 20/16, Wnr. 97 (LA34) in the LVA, interned undamaged on 8 September 1916, is seen here at the factory as *Reparaturflugzeug*. This plane had served with the Fokker flying school with serial S.20. The Fokker school was closed at the end of 1915 and the *Fliegertruppe* took over its Fokker A.I trainers.



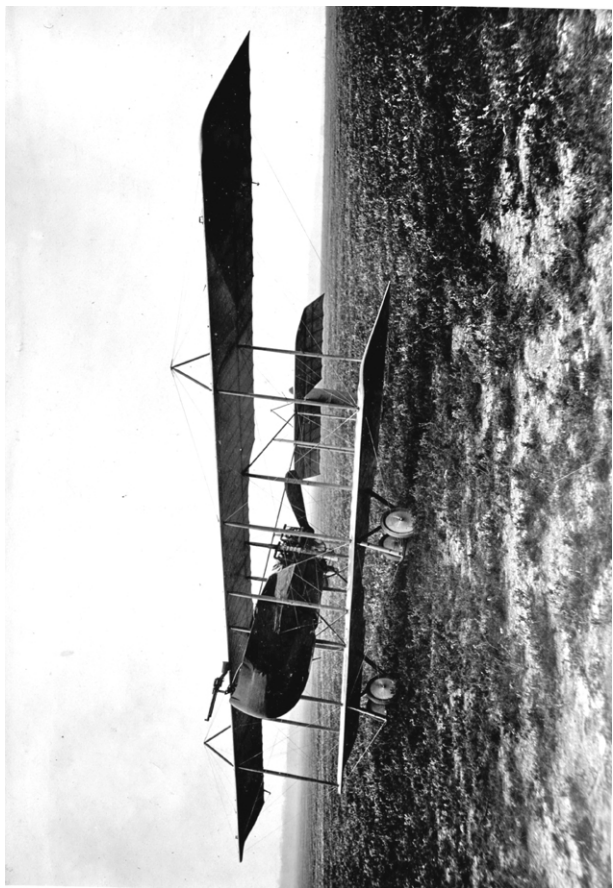
Another photo of Sopwith 1½ Strutter LA 33 with meteorograph equipment installed.



The Fokker A.I was soon in service as LA34.



Aviatik C.III LA36 (ex-1753/16) running the engine at Soesterberg. This plane arrived intact on 11 October.



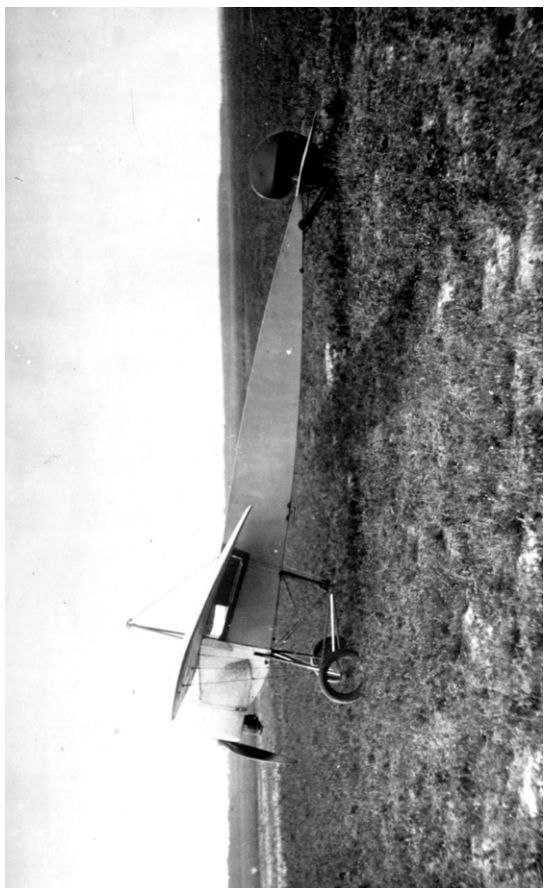
Farman F.40 was test flown on 27 November 1916 by Lt. van Heijst, and was a highly regarded addition to the LVA inventory.



Aviatik C.III, unlike other German recon types, had the observer in the seat with two rifles on rails.



Rumpler B.I 1027/14 was interned on 28 December 1916 at Nijmegen. The crew became lost on a training flight and, on landing in Holland, the plane hit a roof. The plane was written off but the motor was salvaged intact.



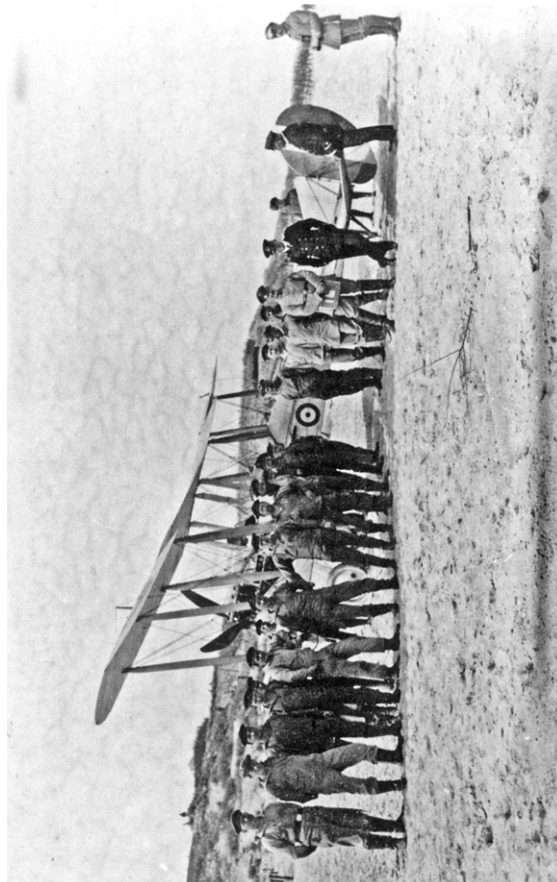
Fokker A.I 20/16 was interned undamaged on 8 September 1916, becoming the LVA's first (but short-lived, w/o 24-03-1917) Fokker aircraft. It carried LVA serial LA34.



Farman HF.20 with mechanics cpls. W. Warnaar (left) and J.W. van der Drift. The pilot may be Lt. van Heijst.



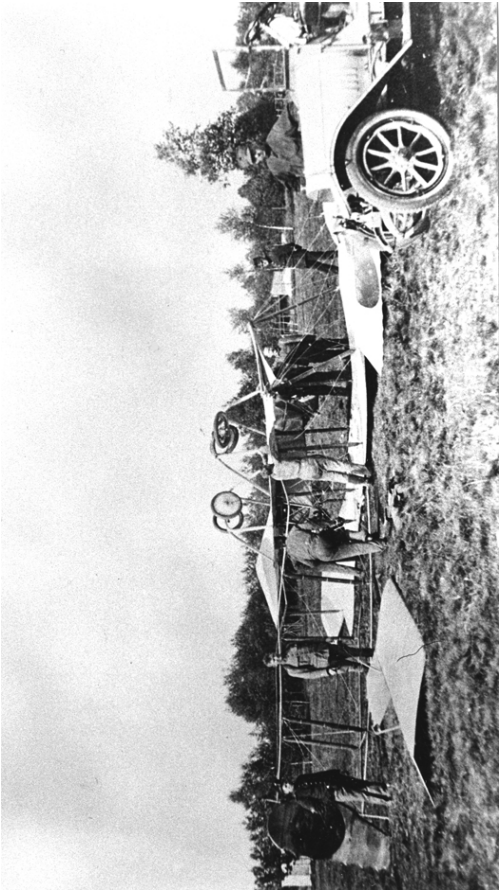
After the hangar collapsed due to a heavy storm on 24 December 1916, Farman LA32 is ready to be transported away. Against the rear wall is the fuselage of an Antoinette that once belonged to pioneer pilot ir. G.P. Küller.



BE2C 8412 surrounded by German troops on 4 May 1916. Its pilot, Fl.Lt. R.E. Greensmith, escaped to Holland.



Mrs. and captain Walaardt Sacré (2nd and 3rd from left) with officers posing by Farman HF.22. The pilot is Lt. G.A. Koppen.



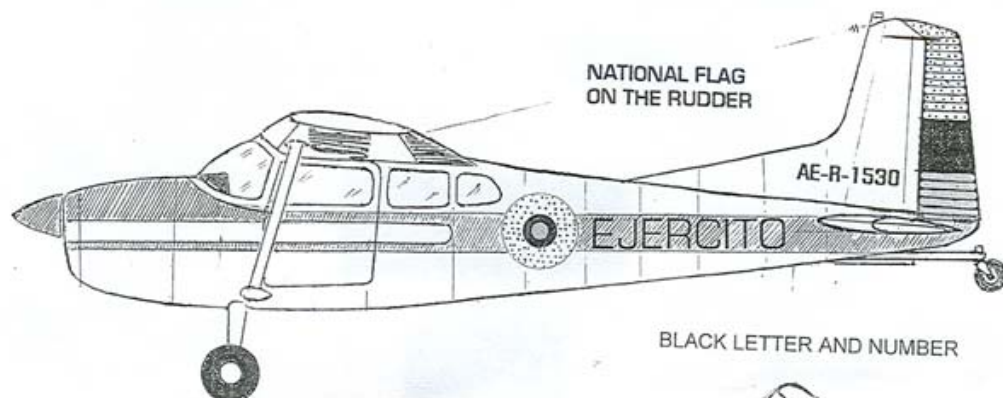
NEI Lt. de Blaauw landed with colonial Farman HF.22 K4 in a meadow near Soest on 9 Sept. 1916, but somersaulted after hitting a ridge when taking off. The plane was repaired.



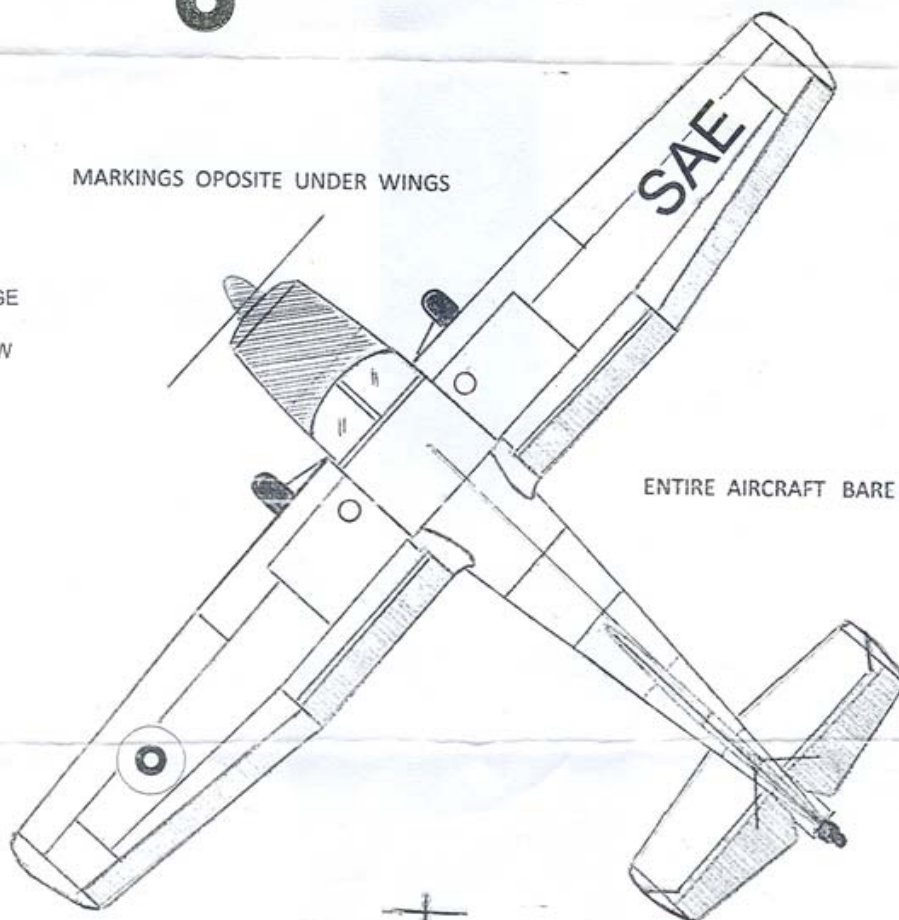
Sopwith Baby 8140 was brought ashore at Scheveningen 27 April 1916, and was transported to Soesterberg. Though the plane was in one piece, it was ruined by the sea water. Therefore, it was copied and a landplane version was considered.

CESSNA 185D

AVIACIÓN DEL EJERCITO ECUATORIANO



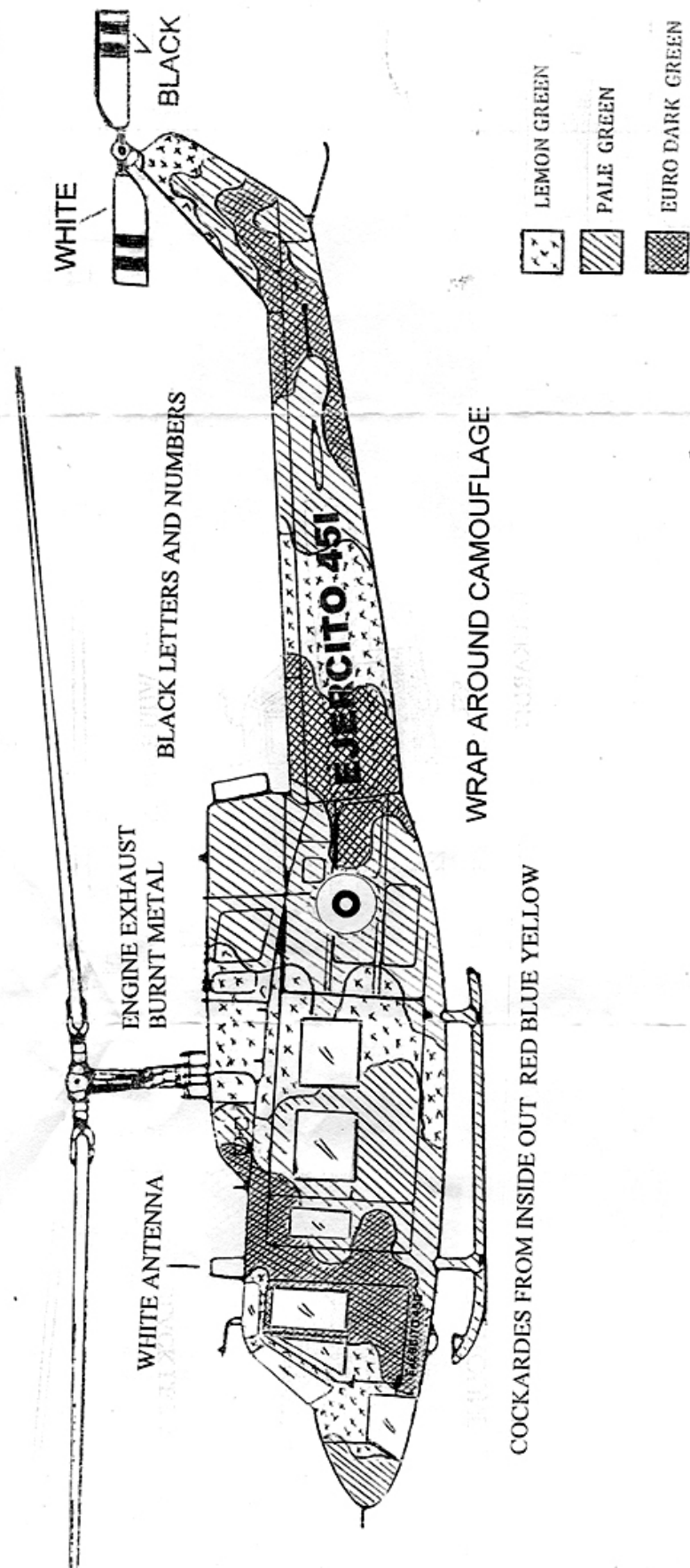
MARKINGS OPOSITE UNDER WINGS



CAP JORGE DELGADO P.
(SAFCH # 862)

BELL 214B

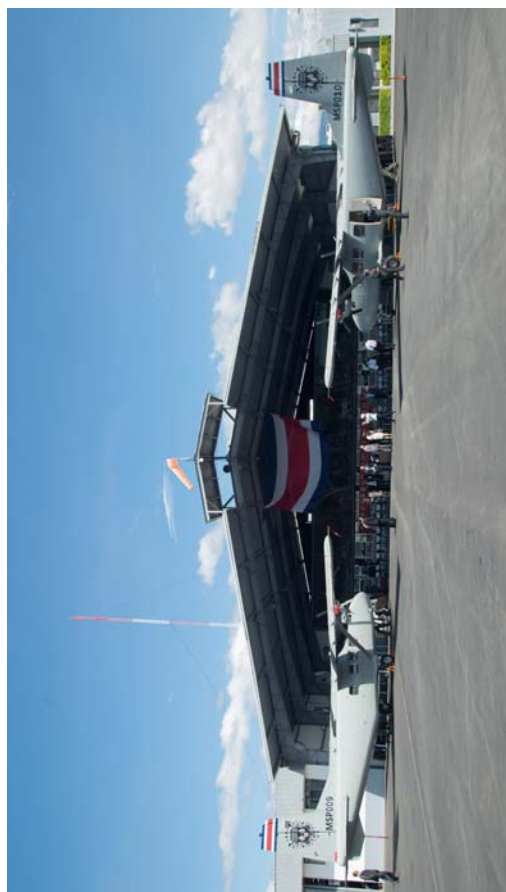
AVIACION DEL EJERCITO ECUATORIANO



CAP JORGE DELGADO P.
(SAFCH # 862)

Exotic Birds 9

Greg Kozak



Costa Rican Pandas: Two new Harbin Y-12 Pandas for Costa Rica's Aerial Vigilance Service, or Servicio de Vigilancia Aérea. The air service is not entirely military in nature, but is attached to the Public Forces of Costa Rica. Image from <http://forum.keypublishing.com>.



Macedonian Mi-17: Images of Macedonian Mi-17s are in fact rather common. This one is quite rare, however, because the subject in question is the only one that wore a proposed low-visibility roundel in two shades of green. It is the triangular patch on the dark-green camouflage segment between the two antenna blades on the fuselage boom. Image from <http://forum.keypublishing.com>.



Macedonian UTVA 66: This UTVA 66 is one of the first aircraft of the fledgling Macedonian air force. It was a former Yugoslavian aircraft that was left to Macedonia after the secession of the country from the former Yugoslav Republic. Note that several areas have been overpainted in non-matching shades of gray to conceal the aircraft's former identity. Image from <http://forum.keypublishing.com>.



Madagascar Alouette II: Remember the Alouette II from Madagascar with the new segmented roundel in a prior installment? Well, this picture shows that the Alouette II indeed has a prior history with the Madagascar air force. Note the large and quite non-standard roundel, outlined in white. Image from unknown internet source.



Mozambique Mi-8: This freshly-painted Mi-8 from the Mozambique air force sports an unusual fuselage insignia. I am not sure if it is yet one more new air force roundel. Any information would be welcome! Image from <http://forum.keypublishing.com>.



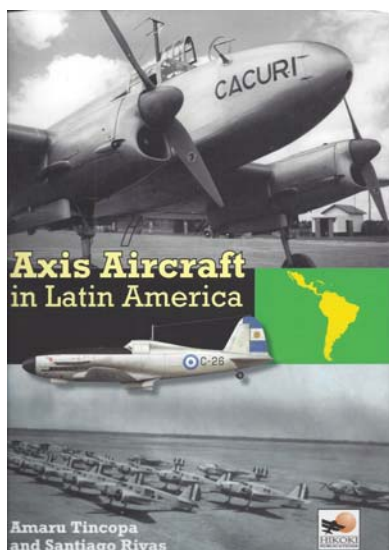
Namibia Harbin Y-12 Panda: Namibia has used the Panda for quite a while. This image is unusual, though, because it shows the air force roundel on the bottom sides of both wings, the first example of such a presentation I have encountered.



Sierra Leone SAAB MFI-15: Sierra Leone used two SAAB MFI-15s. This is a very unusual example of one featuring a large fin flash in the national colors. Image from unknown internet source.



Sudanese Bo-105: I have no idea about this Sudanese Bo-105. It is camouflaged, so I assume it serves some sort of military purpose. The markings are, you must admit, odd to say the least. Again, if anybody has info on this one, please share. Image from unknown internet source.



Axis Aircraft in Latin America, by Amaru Tincopa and Santiago Rivas, 368 A4 pages, hardbound, hundreds of color and black-and-white photos, color profiles, English. Published by Crecy (Hikoki), Manchester, UK, 2016, ISBN 9781902109497 (www.crecy.co.uk) \$56.95 in the US plus S&H.

First-and-foremost, the readers of SAFO should give thanks once again to Crecy for the courage to engage this outstanding contribution to the literature, and to the co-author's for producing a monumental work that will stand as the definitive source for the general subject.

For this reviewer, the book holds yet another distinction, and this may be found in the fact that, although Amaru and Santiago masterfully researched and wrote the majority of its 16 chapters and phenomenal 74 sections, they were aided in this by major section contributions by regional aero-historians as well, who are

acknowledged for their contributions by national chapter with Chile (Danilo Villarroel and Anselmo Aguilar), Paraguay (Antonio Luis Sapienza Fracchia) and Venezuela (Fabian Capecci and Dario Silva) being accorded appropriate by-lines in these chapters.

At first glance, the title – especially after absorbing the book – might seem rather a marketing 'hook' rather than a genuine descriptor of the contents, since many of the aircraft and operators described reached Latin America long before the term "Axis" was formalized, basically covering everything from 1919 until 1945.

However, this in no way detracts from the importance of the connections that needed to be established, as often some of the aircraft covered remained in service well into the Axis era. In truth, the book covers military, commercial and civil aircraft which reached Latin America and which originated in Germany, Italy and, to a much smaller extent, Japan (there is a surprise, I am sure!).

There are about 500 photos, 23 color side-view drawings, by Luca Canossa, and six maps (also by Luca Canossa).

Some of the photos we have seen before, but a large number are new to this reviewer, and very much welcomed. The numerous color side-view drawings, are for the most part accurate, although several suffer from minor outline flaws which may be attributed to the difficulty in locating accurate engineering drawings for the aircraft in question. Pride of place, for this reader, must certainly be the Peruvian Caproni Ca 310 on page 230, in

the colors worn during the 1941 war with Ecuador.

Some readers may find the very frequent references to operational losses and accidents, which abounded during the period 1919-1945 in Latin America – as elsewhere – a bit tedious. However, these, too, add to the difficulties attendant with operating what were often advanced designs in remote reaches with poorly developed airfields and infrastructure. Units of assignment are frequently cited, and accurately, and indeed in many cases correct previously published accounts – which is always a very positive notion.

This reviewer, in particular, was proud to note that the authors dedicated the book to the late, great aero-historian Captain Carlos Dufriche (of Brazil) and Romulo Figueredo, who were both generous and accomplished researchers who functioned in the background for many years in isolation.

There is a very useful set of Appendices which include an aircraft-by-aircraft set of tables, by type, describing serials and registrations, manufacturers serial numbers (c/n's), delivery dates and service notes. These will, hopefully, serve as additional grist for the mill for the next wave of aero historians of the region and lead to yet further revelations. There is also a good index.

It is my fervent hope that all SAFO readers will support both the publisher and the authors for this intrepid piece of work. This is precisely what we have all been hoping for, for these many years.

Dan Hagedorn (#394), USA.

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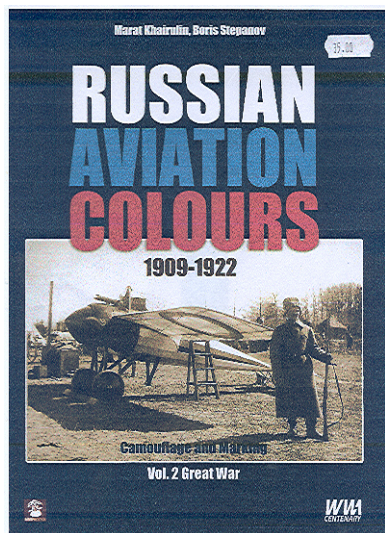
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Russian Aviation Colours 1909-1922, Vol. 2 Great War, by Marat Khairulin & Boris Stepanov. 176 A-4 pages. Published by Stratus/MMP Publications. £ 35.00.

As mentioned in my review of Vol. 1 of this series (SAFO #154, October 2015), this is a volume awaited with great anticipation - and it has been well worth the wait.

This volume covers the period from the outbreak of the Great War to the October Revolution in 1917. Covered are

the three Siberian Air Corps Otryads, the Grenadier Corps, and Special Combat Aviation Otryads. Then the four Combat Aviation Groups and the independent Otryads from 1 to 12. ("Otryad" is roughly equivalent to a "flight" in our terms.)

Then there is a separate section on good-luck charms and souvenir inscriptions. The last section covers the emblems of the various aircraft manufactures.

As in the first volume, there are plenty of rare photos from private and archive sources, although some are reasonably well known. Colour artwork abounds and a brief listing of the types covered include: Anatra D, Farman, Voisin, virtually every type of Nieuport scout from 9 to 23, Sopwith Pup, SPAD 7 & A2, Hansa Brandenburg C.I, various Moranes, Albatros C.III, Sikorsky 16, Vickers Fighter, and rarest-of-the-rare the Savel'yev-Zalewski Quadraplane.

Some of the artwork has enlarged side views, and detail drawings of armament, etc.

For those wishing to model these aircraft, the colours are in some cases decidedly exotic, definitely an

improvement on the colours we are used to on RAF Camels and SE5A's!

This is another excellent volume from Stratus, and I am saving my pension money for Volume 3 covering the early Soviet Air Force.

Malcolm Barratt (#1715), UK.



Mikoyan MiG-17: Tactical Fighter, Yefim Gordon and Dmitriy Komissarov. Famous Russian Aircraft. Crecy Publications, UK, and Specialty Press. Forest Lake, MN 55025. 2016. 480 pp. Ill. \$64.95.

Anyone familiar with mid-to-late 20th century military aviation should be well-acquainted with the long line of Russian fighters, the premier series being that fostered by the MiG design bureau. "MiG" is, of course, a colorful acronym created by joining the initials of the two last names of the two designers Artyom L. Mikoyan and Michail I. Gurevich. The warning cry of "MiGs! MiGs!" was as much a part of early jet warfare as was "Achtung, Spitfires!" in European skies during World War II. And with just as much reason and fear.

Although MiG fighters did not play a major role in WWII—the only truly operational MiG was the early, rather elegant little MiG-3 that had largely been replaced by 1943 - the MiG bureau quickly took its place after the war as the Soviet Union entered the jet age with the MiG-9 as well as other designs from other bureaus.. The world-beater MiG-15 followed and proved itself the equal of most of the West's fighters, including the American F-86, which formed the major opposition the high-tailed MiG faced during the three-year Korean War. Flown by a competent pilot, the MiG-15 could take the measure of the Sabre, its speed and heavy 3-cannon armament giving it advantages that U.S. Air Force pilots definitely had to respect.

It was only natural that the MiG-15 would be improved on and would soon give way to its near-big brother, the MiG-17, mid-way through the war, although the MiG-17 did not enter large-scale service until after the armistice that brought the war to an uncertain halt.

With that introduction, we consider this latest offering from Crecy and Specialty Press. At 8 ½ x 11 ½ inches, this is not a small book, and with nearly 500 coated-stock pages, it is particularly weighty. But nevertheless, it contains everything you ever wanted to know about the MiG-17. There is an all-encompassing collection of black-and-white and color photos, performance charts, pages of comparison tables discussing every MiG-17 produced, and every country for which it served. There is also a great number of color profiles that show every color scheme and marking the fighter ever carried as well as brief but informative synopsis of whatever combat missions each country's MiG-17 might have seen. Those who

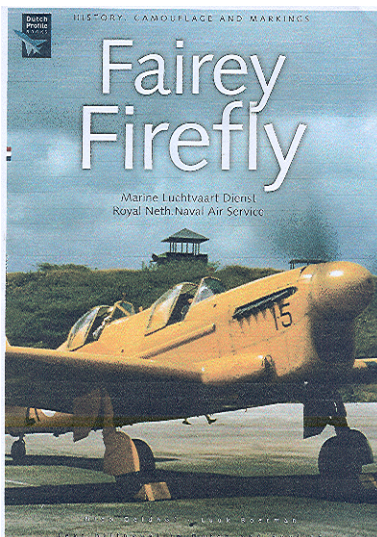
flew against the MiG in Vietnam will find this section of special interest.

I don't know how many scale models of the MiG are available. Even those of its predecessor, the MiG-15, are rather small in number. But if you can find a model of the MiG-17, this veritable encyclopedia will show you all the interior and exterior detail you need to make it one of a kind.

There are a few errors or typos or missing letters, probably because of the need to produce the book in English, but these are quickly negotiated. One that really sticks is the constant reference to American back-seaters as "WSOs" or weapons-systems officers. While this term is correct for the back-seat position of a Boeing F/A-18D or F/A-18F, as well as USAF F-4s, the U.S. Navy and Marine Corps used the term Radar Interception Officers, or RIOs, for the men in the rear cockpits of the F-4 Phantom and the F-14 Tomcat.

In general, however, the text is well and enthusiastically written. If you can get past the pricey fee, I highly recommend this unusually well-done book.

Peter Mersky (#1355), USA.



Fairey Firefly in Netherlands Naval Air Service, by Nico Geldhof and Luuk Boerman. Dutch Profile Books. Dutch/English language. 40 A-4 pages. £ 12.99.

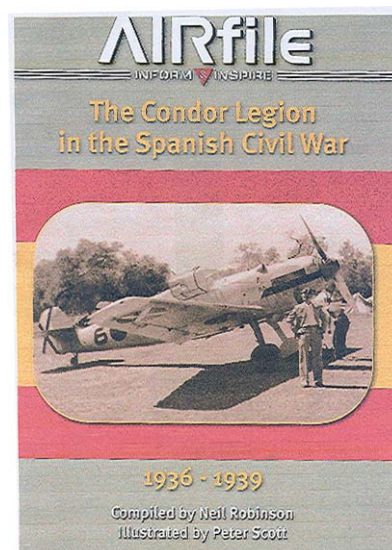
This is the latest in a series of profiles exploring Dutch military aviation. This volume covers Dutch Naval Fireflies from 1945 until the 1950s including service on the aircraft carrier

Karl Doorman, service on land in the Netherlands, against the Indonesian insurgency in the East Indies, and latter service in the Dutch West Indies.

As ever with this series, there are plenty of excellent photos, some of which are contemporary colour shots – although no modeller would ever accept a colour photo as the total truth – would they?

There are 24 colour profiles, side views only, taking us from the Mark 1 aircraft of 1945/1946 through the Mark 4 aircraft and up to the brilliant yellow two-seat trainers. All the individual aircraft histories are given for the statistics buff. The authors note that various of the colour schemes were adapted in the field and might not be official colours.

Is an excellent guide for modellers. Check out www.dutchprofile.nl for more information on their other publications. They also make excellent decals! Malcolm Barratt (#1715). UK.



The Condor Legion in the Spanish Civil War 1936-1939. Compiled by Neil Robinson and illustrated by Peter Scott. Airfile #13. 72 A-4 pages. Published by Guideline Publications. £ 19.00.

This publication draws together as much information as possible on Condor Legion colours and markings throughout the three years of its existence. The author is a well known in the UK as an author/modellers of World War 2 subjects and can be relied upon for concise and accurate information. He makes the point several times that since most of the photo record is in black and

white many colour schemes are open to interpretation.

He starts with a brief introduction to the “how and why” of the Spanish Civil War and the German involvement therein. Subsequent sections give a guide to each separate type of aircraft used.

Section 1 - Fighters: He 51 (approximately 20 colour schemes), and the Bf 109B, C, & D (24 schemes). Some of which are four views.

Section 2 - Bombers: Ju 52/3m (8 schemes), Ju 86 (2 schemes), He 111B, D & E (12 schemes), Do 17E & F (6 schemes).

Section 3 - Ground Attack: Ju 87A & B (5 schemes), Hs 123 (2 schemes).

Section 4 - Recce Types: Do 17P (2 schemes), He 70E & F (4 schemes), He 45C (4 schemes), 46C (3 schemes), Hs 126A (3 schemes).

Section 5 - Maritime Patrol and Recce: He 60E (3 schemes), He 59B (3 schemes), Ju 52/3mW(See) (1 scheme).

Section 6 - Liaison and Mics Types: Ju W34 (3 schemes), Ar 68E (1 scheme), He 112V4 (1 scheme), Fi 156 (1 scheme), Me 108B-2 (1 scheme). Each type has a summary of its combat record (or usage).

An improvement over several of the previous volumes in this series is that there are now photos of some of the aircraft.

This is an ideal English-language introduction to the Condor Legion. Malcolm Barratt (#1715), UK.

Route 9 Problem: The Battle for Lang Vei, by the Warriors Who Fought It as told to Dave Stockwell. Book Publishers Network. 2016. 361 pp. Ill. \$21.95.

The Vietnam War (roughly 1964-1973) was not only a series of albeit hard-fought, bloody aerial campaigns by aircrews who flew from hot, humid airfields throughout Southeast Asia, or the equally hot, humid undulating flight decks of Seventh Fleet carriers in the South China Sea. These long collections of unending sorties were often in concert with terribly bloody and non-productive battles that resulted in a terrible waste of human lives on both sides. These confrontations in the steaming, mind-boiling jungles of the Vietnam peninsula and its surrounding countries of Laos and Cambodia, overflowing sometimes into Thailand, made the newspaper headlines

to add to the confusion and heartache of the people at home.

Perhaps one of the bloodiest campaigns of the Vietnam War was the siege of the base at Khe Sanh in the northwestern highlands of South Vietnam. Lasting some 77 days beginning in February 1968, the battle had several battles that occurred outside the main base of Khe Sanh Combat Base (KSCB), manned mostly by Marines. The North Vietnamese Army (NVA) and their Viet Cong minions struck at night and at times seemed poised to overwhelm the American defenders. Outside the barbed wire surrounding the camp several other battles developed, one of which was the smaller collections of sites that made up Lang Vei on Route 9, west of KSCB. In the early hours of February 8, 1968, one of the first engagements—in this case with amphibious PT-76 tanks, able to ford streams and small rivers to bring their 76mm cannon to bear on American troops.

In a way, *Route 9 Problem* brings the two venues together during a very intense period, namely the time of the 1968 Tet New Year, arguably one of the most hard-fought periods of the war where ground battles raged the length and breadth of South Vietnam as the communist insurgents struggled as never before to gain a strong foothold in the south and oust the powerful American presence.

The action around Lang Vei and Khe Sanh rapidly increased as the NVA sent in a force of PT-76s that advanced on American positions at night. The tanks’ fire, augmented by ground troops that followed behind the communist armor, resulted in the first major casualties in the ranks of the Americans and their South Vietnamese allies. A few tanks were destroyed but the outlook quickly became very grim and the Green Berets began calling for close air support.

As he builds his narrative, the author brings in the timely arrival of Navy A-1 Skyraiders from VA-25 (Fist of the Fleet) flying from the USS *Coral Sea*. (CVA-43). Although the A-1, almost universally and affectionately called the Spad—in respectful reference to the iconic French fighter of World War I—had been in the war since the earliest beginnings, its comparative low speed in comparison with the more modern jets it was now

sharing the carrier flight deck with had put the once- 20-year-old veteran at a disadvantage when flying into the dangerous thickets of enemy flak and SAM envelopes. The A-1 had been relegated to targets south of the Demilitarized Zone (DMZ) that separated the two Vietnams. But the Spad’s pilots were always ready and able to respond when needed. And this was going to be one of those desperate times.

However, although the A-1 might have been approaching obsolescence, it still retained its degree of maneuverability and toughness that its jet cohorts did not. Both advantages would be sorely needed over Lang Vei.

As it happened, a section (two planes) of Fist of the Fleet Spads was right where it was needed when the FAC orbiting over the Green Beret camp at Lang Vei called for help from anyone in the area. LCdr. Rosario “Zip” Rausa quickly acknowledged and took his section down below the low clouds and proceeded to make multiple passes with bombs and especially 20mm cannonfire over the advancing communist troops. He and his wingman, Ltjg. Lawrence E. Gardiner, known as “Leg” because of his initials, gave the Army troops much-needed respite. Rausa and Gardiner were replaced by other VA-25 aviators.

Strangely, and rather unfortunately, Stockwell reports that while Rausa’s efforts were praised by his compatriots and especially the Green Berets, senior leaders were unhappy that he had busted minimums and gone below the clouds that hung so low over the battlefield. Even today, some 50 years later, efforts to augment the courageous Fist pilots’ meager Air Medal in favor of a higher award have been denied. It is hard to figure this lack of appreciation of the risk taken by an experienced aviator to help fellow Americans in danger of being overrun by fearsome enemy forces where ultimate defense was only available from the air and only at that immediate time.

Readers of magazines and books about Naval Aviation subjects will recognize retired Captain Rausa’s name as the two-time editor of *Naval Aviation News* and the author of several books, including a two-edition biography of his beloved Spad, as well as biographies of its designer Ed Heinemann and highly regarded aviation artist R.G. Smith. Now

in his 80s, Rausa still keeps his hand in aviation publishing as the editor of *Wings of Gold*, the quarterly publication for the Association of Naval Aviation (ANA).

Marine helicopters played an important role toward the end of the action at Lang Vei when VMO-6 and HMM-262 crews flew UH-1s and CH-

46s, respectively, into the battered base to airlift survivors out of harm's way,

This heavily-researched book is loaded with details of NVA tactics and equipment. The descriptions of the U.S. participants are equally impressive. Dave Stockwell tells a great story, details of which may not have been available or

even considered by many people interested in the Vietnam War, or even many Vietnam veterans. It is available through the web site: www.langveibattle.com, as well as other commercial book and ebook sites. Peter Mersky (#1355), USA.

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[Editor: Because of computer problems on both sides, the editors of SAFO and IAR lost contact with each other. However, communication has now been re-established and I have received the missing issues (#11 and #12) for review. I am glad to report that these issues are up to the high standards of research and presentation set by the previous ten issues. Each issue is printed on 100 lb gloss stock with color photos, color profiles, and b&w photos for the older subjects. They carry no advertisements. For information on the content of the first ten issue, visit their Website (www.iranianaviation.com). Individual issues cost \$15.67 in California, USA \$15.50 in the other US states, and \$20 for the rest of the world. Order a few copies and be prepared to be amazed.]



Iranian Aviation Review #11. 36 pages.

“News and Updates” ‘Iranian Su-25 Frogfoot in Iraq’ (2 photos). ‘Russian general receives an operational Iranian UAV’ (1 photo). ‘Kish Air Show’ (photo of Iranian Tocano, fullsize mock up of Iranian copy of the Yak-130, and Iranian redesign of the Bell 214). ‘Civil Aviation News’ (5 photos)/ ‘Police Aviation’ (1 photo Cessna T206H). ‘Fleet Update’ (4 photos).

“Canadair CL-13V Sabre Mk.6” 6 pages on the controversial sale of German Sabres to Iran/Pakistan including 8 photos, ‘Chronology of events’ ‘Construction Numbers’ (with

fate of each aircraft), and reproduction of official documents.

“Douglas DC-3/C-47” 16 pages: Part 1 ‘Civil Service’ 9 pages including 32 photos and Fleet Lists. Part 2 ‘Military Service’ 7 pages including 24 photos, 2 color profiles, and table of ‘IIAF All Time C-47 Fleet’

“Time Line of Aviation in Iran: Part 11” ‘World War Two: Part 1’. 3 pages with 8 photos [Oxford Mk.I (2), Hurricane Mk.I. and Curtiss Hawk H75A-9 (5)].

“Iranian Civil Helicopters” one page with 6 photos and table.



Iranian Aviation Review #12 (36 pages)

“News & Updates” *Saeghe* Update Iranian conversion of F-5E into twin tails (2 photos). Sukhoi Su-22 Overhaul (3 photos). UAV Update (4 photos). *Ghased* LGB One photo of laser guided bomb. Iran Air Reborn? (4 photos). 737 Fleet Update (5 photos).

“RF-4E: The incredible story of Iranian Photo Phantoms and the pilots who flew the most daring reconnaissance missions during the Iran-Iraq war” 22 pages. Subsections: ‘Background’, ‘Post 1979’, ‘The Aircraft’, ‘The Cameras’, ‘Project Dark Gene (Missions over the USSR)’, ‘Losses’, ‘Combat Missions’, ‘Project Kowsar (Flight Re-fueling)’, ‘The Unit’, and ‘Current Status’. In all: More than 15 photos and two color profiles of a/c, 16 photos of personnel standing in front of a/c, and numerous photos of details and reconnaissance photos.

“Iran Air Concorde” 4 pages on Iran's order of the SST including 15 photos.

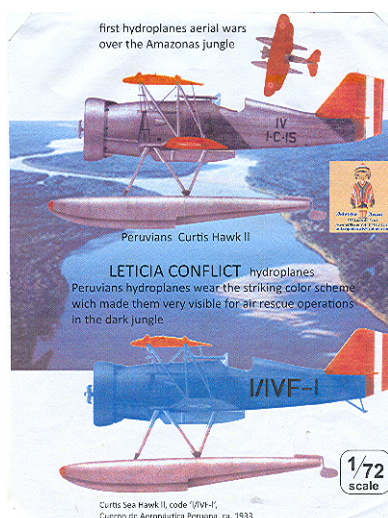
“Time Line of Aviation in Iran: Part 12” ‘World War Two: Part 2. Allied Invasion’ 4 pages including one map and 15 photos of RAF and Russian aircraft in Iran.

“Iranian Civil/Para-Military Helicopters” 2 pages with 11 photos and tables.

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[As seen from the bumper crop of decals reviewed below, Ron Ferreyra of Antarqui has significantly increased the rate of producing new decals for aircraft of the small air forces. He is now in the process of making a list of all available decals – 175 and counting. Since this list is too long to include in the SAFCH Sales List, it will be available from the SAFCH as an Excel file for free or via snail mail for \$1.00 postage USA and \$2.00 rest of world. If you see any decals you want, let me know and I'll get them for you from Antarqui. (This list is still a work in progress and will be frequently updated.) To finance the expanded line of decals, Ron is offering many of books and magazines for sale. This list is available at the same cost as the list of decals. I still have a small number of discontinued Antarqui decals in stock. These are available at half the listed price. The SAFCH Sales List is available at the same cost as the other lists mentioned above.]

Peru and Colombia Curtiss Hawks II.
1/72-scale decals Twin Pack. Antarqui Decals, 757 Emory St., Imperial Beach, CA 91932, \$10.00.



During the Leticia Incident (1932-1933) both Peru and Colombia employed Curtiss Hawk II as land planes and floatplanes. The latest Twin Pack from Antarqui include decals for four floatplanes: Colombian '814' in overall silver with dark floats and another with a complicated Amazon jungle camouflage. The two Peruvian Hawk IIs are in a striking color scheme with red wings and tail feathers – one serialled 'IV/1-C-15' with the fuselage in light grey and the other serialled 'I/IVF-I' with a bright blue fuselage.

Colombian decals (85 mm by 35 mm) include six national insignia and two "814" over a background of light grey. The Peruvian decal (85 mm by 55 mm) include four national roundels printed on a background of red for the wings, red/white/red vertical rudder stripes. The serial 'IV/I-C-15' is printed on a background of light grey, while

'I/IVF-I' is on a background of bright blue.

If you want to build a model of any of these colourful aircraft, but can't find a pair of floats, not to worry. Both the Peruvian and Colombian Hawks IIs operated on either wheels or floats, so the 1/72-scale Monogram F11C can be used without modification.



There are two great books on the air war between Peru and Colombia:

Dan Hagedorn's *Latin American Air Wars and Aircraft 1912-1969*, published by Hikoki, devotes 16 page of photos and color profiles to the "Leticia Incident". These include a color profile of Colombian '814' and Peruvian 'I/IVF-I' both on floats

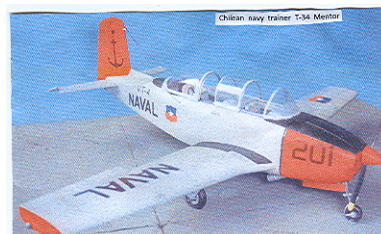
Artipress' *Peruvian Aviation Corps Operation during the Putumayo Campaign September 1932 – May 1933*, by Amaru Tinopa Gailegos devotes all 56 pages to the conflict. The text is in English and there are lots of photos and color profiles including color profiles of Columbia '814' both as a floatplane and as a landplane.

I have not been able to find any photos of the Colombian Hawk II in the

complicated "jungle" camouflage shown on the instruction sheet. If you have any information on this aircraft, I would appreciate hearing from you at saf@redshift.com.

This decal set provides for the straightforward modelling of several colorful landplanes, and if you go to the trouble of fitting floats, you'll have an unique aircraft to add to your collection. These decals are available directly from Antarqui or from the Small Air Forces Sales Service (saf@redshift.com) for \$10.00 plus postage.

Chile and Peru Cessna T-34 Mentor.
1/72-scale decals. Twin Pack. Antarqui Decals, 757 Emory St., Imperial Beach, CA 91932, \$10.00.



Antarqui has come up with another beautiful decal set allowing modellers to add a pair of attractive Latin American aircraft their collections.

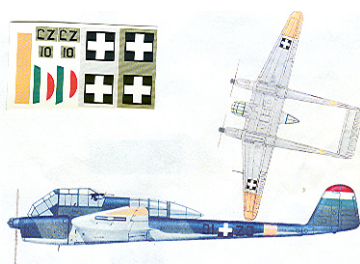
The color scheme for both Mentors' consists of white fuselage, wings, and horizontal tail accented with dayglo red vertical tail, cowlings, and wing tips.

The decals for the Peruvian Mentor (90 mm by 35 mm) consist of 3 red/white/red roundels with superimposed "anchors" – two small ones for the fuselage and one large one

for the upper surface of the port wing; a large 'NAVAL' for the upper surface of the starboard wing; two red/white/red fin flashes for the white rudder; and a pair of small 'NAVAL' and '503' for each side of the fuselage roundels.

The decals for the Chilean Mentor (50 mm by 50 mm) consist of four national insignia (two for the fuselage and one for the upper surface of the port wing and one for the lower surface of the starboard wing; two large 'NAVAL' for the opposite wing surfaces; two small 'VT-4/NAVAL' for the fuselage; and two large "anchors" and two large '201' for the daygo tail and cowlings respectively.

The is another excellent Antarqui Twin Pack that allows to modeller to add two attractive Latin American aircraft to their collection. These decals are available directly from Antarqui or from the Small Air Forces Sales Service (safo@redshift.com) for \$10.00 plus postage.



Romania Hs 129 and Hungary Fw 189. 1/72-scale decals. Twin Pack. Antarqui Decals, 757 Emory St., Imperial Beach, CA 91932, \$10.00.

The summer camouflage of the Romanian Hs 129 is described medium green upper surfaces, sky blue under surfaces, and yellow wing tips, nose, and fuselage band. The winter scheme (shown above), is described as overall white with mottled forest green on the upper surfaces, sky blue under surfaces, and yellow identification markings as on the summer scheme.

The decals for the Hs 129 (80 mm by 55 mm) consist of 6 national insignia,

two fin flashes, two '120' for the tail, and a yellow stripe.

The decals for the Hungarian Fw 189 (65 mm by 40 mm) provide 4 Hungarian crosses for the wings, two horizontal fin stripes for the outside of the vertical tail, two codes 'CZ + 10', and a yellow band for the tail booms. Missing from the review sample are the small national insignia for tail booms, but Antarqui assures me that these will be included with the production decals. The instruction sheet specifies the colors as "German WWII green upper surfaces and light blue or light grey lower surfaces".

Note: The color profile (above) and the instruction sheet show aircraft with code 'DI + 23' different from that on the decals.

These Antarqui's decals provides an easy way to add a couple of small-air-force aircraft of German origin to your collection. These decals are available directly from Antarqui or from the SAFCH Sales Service (safo@redshift.com) for \$10.00 plus postage.

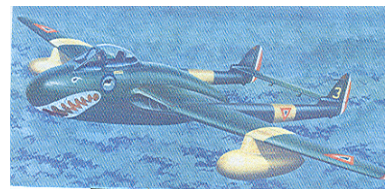


Romania Bf 109. 1/72-scale decals. Antarqui Decals, 757 Emory St., Imperial Beach, CA 91932, \$6.00.

The decals are provided for a Romanian Bf 109E at Jassi, Romania, Summer 1941. The decals (50 mm by 70 mm) provide 6 national insignia, two vertical rudder stripes, two "47", Donald Duck personal emblem, and other miscellaneous small markings. The color profile of "5" above gives an idea of the color scheme and markings of a Romanian Bf 109E, and the instruction sheet provides a 4-view drawing of '47'. These drawings show the placement of decals for aircraft "47" and describe the colors as Dark Violet, RLM Grey upper surfaces and Light Blue lower surfaces, and Yellow identification markings.

These Antarqui's decals provides an easy way to add a small-air-force Bf 109 to your collection. The decals are available directly from Antarqui or from the SAFCH Sales Service (safo@redshift.com) for \$6.00 plus postage.

Mexico and Venezuela de Havilland Vampire. 1/72-scale Twin Pack. Antarqui Decals, 757 Emory St., Imperial Beach, CA 91932, \$10.00.



This Antarqui set provides decals for two Latin American de Havilland Vampires: Mexican and Venezuelan. The Mexican Vampire is described in the instruction sheet: "In the early 60's fifteen ex-RCAF de Havilland Vampire F.3 jet fighters were obtained for Escuadron de Pelea 200. They were in service with the FAM until their withdraw late 1967. The color scheme was dark green overall. Some wore orange bands on tail booms and wings." The decals (100 mm by 85 mm), overprinted on a green base consists of every thing needed to model a Mexican Vampire: four wing national insignia, four fin flashed, orange wing and tail boom bands, two unit emblem, shark mouth and eyes, individual aircraft numbers '8' and wing walk stencilling.

According to the instruction sheet, "The DH Vampire arrived in the FAV in 1952. 2A36 is now preserved at the FAV museum." These aircraft were silver overall. The decal sheet (110 mm by 30 mm) consists of four large national insignia for the wings and two small ones for the tail booms, two fin flashed, two '3-A35' and red lightning flash for the nose, and wing walk stencilling.

These decals are available directly from Antarqui or from the Small Air Forces Sales Service (safo@redshift.com) for \$10.00 plus postage.



Romania PZL P.23A Karas & Bulgaria PZL P-43A. 1/72-scale decals. Twin-pack. Antarqui Decals. \$9.00.

The main difference between the PZL-43A and the P-23 is the engine. The modeler can easily convert the Heller Karas to a P-43 if he can find a suitable cowl in the proverbial 'spares box'.

The decals for the Romanian Karas (90 mm by 50) consist of six St. Michel-cross national insignia (2 for the upper surface of the wings and two for the fuselage all printed on a background of dark khaki and two for the lower surfaces of the wing printed on a light-grey background), vertical rudder stripes, one white '17' for the vertical fin printed on the dark khaki, and a yellow stripe for the aft of the fuselage.. Missing are the white 'PZL 23/Karas' for the vertical fin.

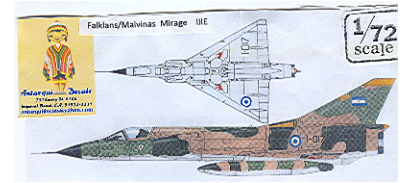
The decals for the Bulgarian PZL P-43 consist of four large Maltese-cross national insignia (two printer on a light khaki background for the upper surfaces of the wing and two on sky blue background for the lower surfaces of the

wings), and two smaller insignia for the fuselage. and the unusually-shaped rudder stripes (see profile). Missing is the longitudinal red fuselage stripe common to most Bulgarian combat aircraft.

(Ed: The Maltese crosses look a little anemic to me, but after examining a number of photos and color profiles, I have to admit they are acceptable to all but the most fastidious of modelers.)

One of best English language reference for the Karas is *PZL.23 Karas*, by Tomasz J. Kopanski publish by MMP. Included in this publication is a multi-view color drawing of Romanian '17' showing the position of all the markings. Color multi-view drawings are also provided for a number of Bulgarian P-43: one with the Maltese-cross insignia and four with St. Andrew cross insignia.

Argentine Army C-47 Skytrain and Falkins/Malvinas Miarge IIIIE. 1/72-scale decals. Twin Pack. Antarqui Decals, 757 Emory St., Imperial Beach, CA 91932, \$9.00. Antarqui.



The Argentine Army Douglas C-47 Dakota of V Brigada Aerea was olive drab and tan camouflage with pale blue lower surfaces. Titles and serial numbers were balck. The decals (50 mm by 75 mm) consist of two large blue/white/blue roundels for the wings, four small roundels with 'TC-27' for the fuselage, two fin flashes, three small unit emblems, and three FUERZA AEREA ARGENTINA for the fuselage.

The decals for the Argentina Mirage IIIIEA are for 'I-017' of Grupo 8 de Casa/VI Brigada Aerea camouflaged in greens FS24079 and FS24102 plus tan FS20219 with lower surfaces pale grey FS26622. The decals (85 mm by 45 mm) provide four roundels and 'I-017' for the fuselage and wings, two fin flashes, and three FUERZA AEREA ARGENTINA.

These decals are available directly from Antarqui or from the Small Air Forces Sales Service (safo@redshift.com) for \$9.00 plus postage.

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The Birth of an Air Service: The Serbian Aviation Command, by Bortes Cigle. *Cross and Cockade International*, 47:3 (Autumn 2016): 187-201.

This article describes the development of the world's first air service in the early twentieth century. Although proposed in 1893, the aviation service did not begin until 1908 when a flock of carrier pigeons to serve with the first balloons. In May 1912, the service acquired its first combat airplane whe it was acquired by guerrillas fighting to free southern Serbia from the Ottoman Turk

Empire. The article goes on to describe the role of airpower in the First Balkan War (1912–1913).

The article is well illustrated with photographs and color illustrations of Serbian aircraft.

Alan Hawk (#721), USA.

"While thumbing through an old edition of the Czech magazine *Revi* (December 2013) I ran across a couple of kit manufactures that were new to me with interesting aircraft kits.

"HR Models offers 1/72-scale Phoenix C.I in 8 version: Early Austria, Early Czechoslovakia, Late Yugoslavia (SHS), Late Hungarian, Late Sweden, Late Austria, Late Czechoslovakia, Lloyd Austria-Hungaria (sic).

"Fly offer a 1/72-scale kit of posr-WW2 Bf 108B/D with decals for Sweden, Poland (2), and Switzerland.

"Both companies have websites, and FLY appears to offer a decals sheet with many post-war Taufuns in the makings of the small air forces."

Jim Sanders (1), USA.



LVA in 1916:



LVA Aviatik C.III.
Unlike other German recce types, the Aviatik C.III had the observer in the front seat.